DOCUMENT RESUME

ED 262 537 EC 180 945

AUTHOR Rizzi, Daniel
TITLE Attitude Change toward the Physically Handicapped through the Use of Film.
PUB DATE Aug 84
NOTE 152p.; Ph. D. Dissertation, University of Sarasota.
AVAILABLE FROM University Microfilms International, Research Abstracts, 300 N. Zeeb Rd., Ann Arbor, MI 48106.
PUB TYPE Dissertations/Theses - Doctoral Dissertations (041) -- Reports - Research/Technical (143)

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS Attitude Change; *Disabilities; Elementary Education; *Films; *Peer Acceptance; Physical Disabilities; *Student Attitudes

ABSTRACT

A study was conducted to determine attitudinal change of nonhandicapped students (grades 6-8) toward the handicapped after viewing a brief 13-minute film about physically disabled children. The sample consisted of 227 middle school students enrolled in sixth, seventh, and eighth grades. Form O of the Attitude Towards the Disabled Persons (ATDP) scale was used as the pre- and post-test in a modified version of the Nonequivalent Control Group Design. Students in the treatment group were shown the film "The Same Inside." The results indicate that the attitudes of the treatment group were significantly more positive toward handicapped persons after viewing the film. The findings substantiated previous studies which found that exposure to carefully selected film does result in a favorable change of attitude. The results also corroborate findings in that specific and general attitudes toward handicapped persons can be significantly altered by a single, relatively short classroom presentation. The results of this study show that film is an effective technique to help meet the need of preparing nonhandicapped students to accept the handicapped in a more positive manner. (Author/CL)

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ATTITUDE CHANGE TOWARD THE PHYSICALLY HANDICAPPED THROUGH THE USE OF FILM

by

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Submitted in partial fulfillment
of the requirements for
the degree of
Doctor of Education in
The University of Sarasota

August 1984

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ABSTRACT

The Education for All Handicapped Children Act (Public Law 94-142) of 1975 marked the dawn of a new era in the history of the education of exceptional children in the United States. Although the new law was thorough and thoughtfully written, no guidelines or criteria were provided for the preparation of the regular, nonhandicapped student body to receive the special student in the mainstreaming process. This omission seriously jeopardizes the success of the integration program. It has been previously demonstrated that students express less than favorable attitudes toward the physically handicapped children (Billings, 1963; Centers & Centers, 1963; Richardson, 1970). Therefore, new methods and techniques must be explored to help alleviate this major problem and flaw in the legislation.

Previous studies indicate that various intervention techniques to modify attitude can be effective. However, no studies were found which ascertained what effect or change in the attitudes of nonhandicapped students (grades six-eight) toward the handicapped student occurs as a result of viewing a brief film. Therefore, a study was conducted to determine attitudinal change of nonhandicapped students toward the handicapped after viewing a brief 13 minute film about

physically disabled children.

The sample consisted of 227 middle school students enrolled in 12 Social Studies classes in sixth, seventh, and eighth-grades. Form O of the Attitude Towards the Disabled Persons (ATDP) scale developed by Yuker, Block, and Campbell (1960) was used as the pre and posttest in a modified version of the Nonequivalent Control Group Design recommended by Campbell and Stanley (1963). Students in the treatment group were shown the film, The Same Inside.

A comparison on the mean of the ATDP pretest scores with the mean ATDP posttest scores following exposure to the treatment was tested by multiple analysis t tests and by analysis of variance. The difference of 12.57 between pre and posttest means for subjects receiving ATDP, Form O_1 as the pretest and ATDP, Form O_2 as the posttest is highly significant ($p = .00004$). Also, the difference of 16.17 between pre and posttest means for subjects receiving ATDP, Form O_2 as the pretest and ATDP, Form O_1 as the posttest is highly significant ($p = .00002$). The results indicate that the attitudes of the treatment group as measured on the ATDP, Form O scale were significantly more positive (favorable) toward handicapped persons after viewing the film. This suggests that film may be an effective means of facilitating positive

attitudes toward handicapped persons within a relatively short period of time and be a great potential aid in the integration of the handicapped in regular schools.

The findings of this study substantiated the studies of Ishikawa and Fujita (1978), Mulkey (1981), and Westervelt and McKinney (1980) which found that exposure to carefully selected film which deals with handicapping conditions does result in a change of attitude more favorable to handicapped persons. The results also corroborate the findings of Baker et al. (1981) and Donaldson (1980) in that specific and general attitudes toward handicapped persons can be significantly altered by a single classroom presentation of relatively short duration. The results of this study have shown that film is an effective technique to help meet the need of preparing the nonhandicapped students to receive the handicapped in a more positive and favorable manner. It remains for the educational community to utilize the findings of this study for the benefit of all children, nonhandicapped as well as handicapped.

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ACKNOWLEDGEMENTS

I want to thank first and foremost, my wife, Joan, and my children, Danny, Jeff and Susan, whose comfort, encouragement, and sacrifice made this effort possible. Their contribution can never be measured. A special flow of appreciation to Dr. Peter Gioiello and Dr. Ara Mantarian for willingly sharing their storehouse of knowledge and experiences throughout my career and to Dr. Demos Gallender for so aptly advising me from the beginning to the end of this dissertation.

I am grateful for the support and assistance rendered by Dr. Charles Danowski, Dr. Andrew Kerfut, Dr. Scott Mosenthal and the entire instructional staff at the Middle School. I am particularly indebted to Karen Nurmi, Priscilla Dolan, Richard Wallin, Robert Munigle, and Tom Boyd. Without their help, the study was not possible. I am also appreciative to the Mercy College Library staff, Michael McCoy of the Public Library of the Tarrytowns, and Pat Halleran of the Mt. Vernon Public Library, for the many hours expended assisting in the researching for this project.

A special acknowledgement to my sister Marie and brother-in-law Joe Bannon for their help and countenance. Also, to the White Plains Chapter of the March of Dimes for providing the film used in this study and especially to Jim Leonard of the BOCES Data Processing Center, without whose consideration, kindness and expertise, the statistical analysis in this study was not possible.

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CHAPTER I

Introduction

Historical Perception

Historically, people who have appeared or behaved differently than the accepted norm have been outcast, typecast and/or stereotyped. Throughout the ages, attitudes of the socially accepted normal person towards these different people have ranged from reverence to repulsion (Hewett & Forness, 1974).

Some cultures persecuted the handicapped, some ignored their needs through indifference, and others simply destroyed them at birth. Primitive societies did not tolerate individual weaknesses. In ancient India cripples were thrown into the Ganges river; the Spartans of Greece hurled their handicapped over cliffs; the Aztecs used their handicapped as human sacrifices; the Melanesians buried their members alive; and the Romans trained the more fortunate handicapped to be slaves (Gallender, 1980).

During the Middle Ages the handicapped were considered as being possessed by evil spirits. Being seen in public brought the risk of being stoned to death. Those who survived became prisoners in their own homes (Hewett & Forness, 1974).

In the United States, negative attitudes conceived from superstition and ignorance have contributed to a history replete with misunderstanding and mistreatment of those perceived to be abnormal. The Salem witch hunts of the 1600's, the dehumanization of the handicapped in the "crazy houses" of the 1800's and the barbarous conditions of confinement in the state residential mental hospitals of the early 1900's are examples of the outcomes of these perceptions (Hewett & Forness, 1974). These situations may not appear to be as drastic or final as in the earlier cultures in which the handicapped were put to death, but to many, it was considered a living death (Durant & Durant, 1965).

The state mental hospitals and residential school systems created by well-intentioned altruism eventually became warehouses for the mentally, physically and emotionally handicapped. By the 1900's the overcrowded undermanned institutions had become little more than storage facilities for human bodies providing custodial levels of care (Pritchard, 1963). Patients or inmates were often misunderstood and mistreated. They were frequently isolated, chained, and/or placed in padded cells (Zilboorg & Henry, 1941). The physically dis abled and mentally handicapped were relegated to the status of second class citizens, with education and

other socially accepted services, for all intents and purposes, nonexistent.

The so-called hospitals became places to avoid and for many years, people with handicapping conditions were hidden by their loved ones to avoid institutionalization. The handicapped were kept in rear bedrooms, attics, basements or other jail-like environments, often living an entire lifetime confined, undetected, and unknown to anyone outside the immediate family. As repulsive as this appears, the hidden child could only be kept by those parents who could afford such a luxury (Hewett & Forness, 1974).

Classroom Placement

Some handicapped children, who did not physically appear nor behave drastically different than the norm were placed in regular classrooms according to traditionally accepted educational practices. This was often a formidable task for the mildly handicapped because their disability could not be seen. The limitations of the physically handicapped child were more likely to be visually evident, but the unseen handicap often presented greater problems for the student simply because it was not visible. The hidden handicap created the additional problem of convincing others that a handicapping condition did, in fact, exist (Sumption & Luecking, 1960).

A student entering school under these circumstances had many negative factors to overcome. Usually, there was no preparation for the special student entering the school setting nor was the regular student body prepared to receive the special student. Generally, the receiving teacher was not provided prior information nor given an opportunity for inservice training. Special materials, equipment, or supplies were not ordinarily provided. The student was often received with fear and apprehension and, along with the teacher, was allowed to sink or swim in the educational pool. This process predisposed the handicapped student to failure and rejection, and condemned the teacher to frustration and constant self re-evaluation. This, of course, further contributed to detrimental perceptions of the handicapped by the regular student (Bruininks & Rynders, 1971).

In spite of its obvious short comings, this abhorrent classroom adaptation for the special student persisted through the 1930's. It was eventually recognized as a self-defeating process. The failure of this myopic plan gave impetus to a movement of concerned parents and educators desiring something better, but the depression and World War II delayed progress in all fields of special education. However, by the late 1940's the de-

mands of parents, the enthusiasm of professionals and federal, state and private funding gave new impetus to progress (Pritchard, 1963).

The 1950's began a significant era in special education in the United States when a series of federal legislation provisions established grants for research and training of personnel in education of the handicapped (Hewett & Forness, 1974). However, it was not until the 1960's, that special classes of self-contained classrooms were provided to satisfy the special needs of these unique students. Children with disorders similar to those of the neglected handicapped children of the 1930's, '40's and '50's were now to receive special attention in a special setting, the self contained classroom. The room, however, was often located in isolated parts of the school building, separated from the mainstream of classes. The conditions were frequently substandard and unacceptable for regular classrooms. As a rule, the numbers of students in these classes were fewer than in the regular classes. However, the composition of students was commonly a conglomeration of handicapping conditions, of multiple ages with extensive ranges of needs (Bruininks & Rynders, 1971).

The special class concept was eagerly received by

the bewildered and beleaguered teachers and administrators. Segregation of the special student from the regular classroom quickly became the accepted practice. With great expectations most educators accepted the special class concept. However, there remained a large number of dissatisfied parents and educators who did not accept the segregation system as the best means of education for the handicapped (Dunn, 1973). In the 1960's and early 1970's, parent-teacher pressure groups mounted strong campaigns at the grass roots level to influence local school boards and state and federal legislative bodies to re-think their positions on all aspects of special education (Pritchard, 1963). The pressure groups strongly urged these legislative bodies to reconsider the values of integrating all students in regular school programs when appropriate and when properly financed and administered (see Appendix A for chronology of educational legislation for the handicapped).

Public Law 94-142

The unceasing efforts of the parent-teacher pressure groups accomplished significant goals in a relatively short period of time. Their demand for integrated programs resulted in the opening of school doors by legislative process (Gallender, 1980). For the

first time in American history, the federal government provided a law with specific guidelines for an appropriate, free public education for all handicapped children. Probably the single most significant piece of legislation, "The Education for All Handicapped Children Act" (Public Law 94-142), was signed into law by President Gerald Ford on November 28, 1975 (see Appendix B for major provisions of Public Law 94-142). This act marked the dawn of a new era in the history of the education of exceptional children in the United States. It was mandated by Federal Law that all children with handicapping conditions be provided an appropriate free public education in the least restrictive environment and to the maximum extent possible, with the normal peer group.

> The passage of Public Law 94-142 is the largest educational boost for the multihandicapped student in the history of education in the United States (Gallender, 1980, p. 25).

Mainstreaming

Although there was no direct, clear definition of the concept of mainstreaming in Public Law 94-142, the process through which children with handicapping conditions were to be integrated educationally and socially with their nonhandicapped peers became commonly known as mainstreaming. The intent of this process was to pro-

vide a favorable learning experience, not only for the handicapped, but perhaps even more importantly, for the nonhandicapped student as well. The Council For Exceptional Children in their statement on Mainstreaming said, " ... 'mainstreaming' should unite the skills of general education and special education so that all children may have equal educational opportunity" (Bandbury, 1982, p. 3). The National Education Association advised it would support mainstreaming if it provided a favorable learning experience both for the handicapped and for regular students (NEA, 1975). Most educators favored the mainstreaming concept, but they, along with parents, made it abundantly clear to the education community that the total program had to be administered whereby all students had the opportunity to benefit socially, intellectually, physically and educationally from the integration process.

This integration process may appear, at first, to be a return to a previous practice that had proved shamefully unsuccessful. This time, however, specific conditions were outlined, parameters established, and explicit requirements defined. Special education opportunities and related services designed to meet the unique needs of all handicapped children were the basic

purposes of this land mark legislation. Sontag, Smith, and Certo (1977) have stated:

> The Education for All Handicapped Children Act guarantees that every handicapped child in the United States will now receive a free, specially designed public education to meet his unique needs. Furthermore, the rights of handicapped children and their parents will be protected through the specific due process provisions of the law. The law also affords an opportunity for the renewal of our educational priorities for all handicapped children in the United States (p. 27).

The paramount intent of the new guidelines was to make mainstreaming a viable and valid program with the major goal of integrating children who look or learn differently, into the mainstream of the educational current. The special child was to be integrated with his/her peer group in the regular school setting, regardless of the severity of the handicapping condition.

Omission in Public Law 94-142

Public Law 94-142 was thorough and thoughtfully written. The process of development involved many committed, dedicated people over a span of many years. Countless hours of study, debate, hearings and legislative sessions were held to provide the utmost input for the legislators to construct and compose such a document.

At first, parents, teachers and legislators

received Public Law 94-142 with open arms, regarding it as a new "Bill of Rights" for the handicapped student. There were many safeguards built in the new law to protect the rights of all children, handicapped and nonhandicapped, as well as their parents. But it soon became evident that a serious flaw existed which jeopardized the success of the entire program.

For many educators, parents and legislators concerned for the well-being and well-fare of all students, nonhandicapped as well as handicapped, it became obvious there were no provisions for the preparation of the normal child to receive the different child. It became common practice to place children with handicapping conditions in educational settings without educating the regular student body about the characteristics, nature, special needs and contributions of an exceptional child. Even today, after four years of implementation, provisions for preparing nonhandicapped children to accept children with handicapping conditions are non-existent, inadequate and/or inappropriate. The mere placement of the handicapped child in the regular classroom does not automatically mainstream the handicapped child. Placement without an attempt to change preconceived attitudes is not conducive to true accep-

tance, understanding and integration. On the contrary, if the attitudes of the nonhandicapped towards the handicapped are negative, the experience may be destructive to the ego of the child with the handicapping condition and detrimental to the entire educational process (Billings, 1963; Cohen, 1977; Katz, Katz & Cohen, 1976). The major problem of placement without preparation can cause irreparable damage, destroying the original concept of integration and provide the handicapped child with another rejection experience (NARC Phoenix Conference, 1980).

The goal of providing a free public education to every student regardless of need and handicapping condition is attainable. However, it is accepted and understood that this is one of the most complex educational innovations ever undertaken in the United States. There are many recent studies that support the claim that the process of changing attitudes toward children with handicapping conditions can be accomplished through education (Baker, et al., 1981; Donaldson & Martinson, 1977; Jones et al., 1981; Lazar et al., 1976a; Lipsky, 1981; McKerracher, 1982; Rapier et al., 1972; Sedlick & Penta, 1975; Smith et al., 1981; Yerxa, 1971).

Purpose of the Investigation

It is the purpose of this study to determine if positive attitudinal changes occur in nonhandicapped middle school students toward the handicapped after exposure to a film designed to promote a greater understanding and appreciation of the handicapped.

Objective

The objective of this study is to evaluate attitudinal changes in nonhandicapped students after viewing a brief film designed to point out how the aspirations and interests of a handicapped child are similar to those of his or her nonhandicapped classmates.

Statement of the Problem

What effect or change in the attitudes of nonhandicapped students toward the handicapped student occur as a result of viewing a brief film developed with the intent of promoting greater understanding and appreciation of the handicapped?

Null Hypothesis

There will be no significant difference between the attitudes of nonhandicapped students toward handicapped students before viewing a brief film, and the attitudes of nonhandicapped students toward handicapped

students after viewing the film.

Assumptions

It is assumed that:

1. There is a general climate of opinion which predisposes students to assess the physically handicapped without prior contact with or exposure to these persons (Allport, 1935; Form, 1953).
2. Attitudes toward the physically handicapped can be isolated and measured (Allport, 1967; Thurstone, 1928; Thurstone & Chave, 1929).
3. Students will be honest when answering questionnaires submitted by the researcher.
4. The instrument used to measure the attitudes toward the physically disabled is appropriate for use with sixth, seventh and eighth-grade students (Donlon, 1974; Edwards & Kenney, 1946; Henderson et al., 1978; Horne, 1980; Lazar, 1976b; Oppenheim, 1966; Stodden et al., 1973).
5. Many of the problems of the physically and mentally disabled are problems of stigma held by the nonhandicapped, and not physical limitation, per se (Lipsky, 1981).

Delimitations

1. This study will be confined to 227 sixth, seventh and eighth-grade students enrolled in a middle school

located in Westchester County, New York.

2. This study was conducted on November 14, 15 and 17, 1983.

3. The results of this study cannot be generalized to other grade levels.

4. Attitudes toward disabled people were the only attitudes measured. Therefore, the results of this study cannot be generalized to other implications of attitude change.

5. The instructional presentation investigated was delimited to the showing of a brief, 13 minute film.

Limitations

It should be known that:

1. Students and teachers who participated in this study were not financially rewarded for their efforts.

2. There was no way to determine if the responses given by the students were truthful and real.

3. There are inherent limitations in all methods of testing.

4. Attitude scales should be regarded only as the roughest approximation of the way in which attitudes actually exist in the personality of the individuals (Saunders, 1969).

5. When attitude is measured, reliance on inference is

essential since it is impossible to measure attitude directly (Henderson, et al., 1978).

6. The Attitude Toward Disabled Persons Scale was used in this study and the major conclusions were based on scores from this measure.

Definitions

Attitude ... There are a multitude of definitions given for the term. Shaw and Wright (1967) have extracted, as much as possible, the commonalities and have attempted to relate the construct as closely as possible to operation. For the purpose of this study, the following definition is offered:

> A relatively enduring system of affective, evaluative reactions based upon and reflecting the evaluative concepts or beliefs which have been learned about the characteristics of a social object or class or social objects. As an affective reaction, it is a covert or implicit response (p.10).

Disabled ... Most definitions of the term disabled are operational in nature and are developed for particular administrative purposes. They usually include a reference to limitation of functions and/or activity restriction (Baker et al., 1981). From the sociological view, Meyers (1968) defined a disabled person as:

> ... one who, because of his physical or mental handicap, can not -- or is not permitted by

> community members to -- function in his social roles (p. 27).

A definition acceptable for the purpose of this study was disseminated by the United Nations in their Declaration on the Rights of Disabled Persons (1975). It defines a disabled person as:

> ... any person unable to ensure by himself or herself wholly or partly the necessities of a normal individual and/or social life, as a result of a deficiency, either congenital or not, in his or her physical or mental capabilities (p. 3).

Handicap ...

> ... A handicap represents a composite picture involving various degrees of functional limitation and/or activity restriction regardless of the origin or underlying major conditions. It also represents the social and environmental consequence to an individual stemming from the presence of an impairment or disability (Baker et al., 1981, p. 57).

For the purpose of this study, the terms handicapped and disabled are used interchangeably.

Attitude Scale ...

> The typical attitude scale measures the acceptance of evaluative statements about the attitude object. The attitude toward the object is inferred from the statements endorsed by the subject, based upon the consensual evaluation of the nature of the characteristics attributed to the object by the acceptance of these statements. Such scales measure only the positivity-negativity of the affective reaction (Shaw & Wright, 1967, p. 14).

Oppenheim (1966) states the chief function of scales is:

> ... to divide people roughly into a number of broad groups, with regard to a particular attitude. They are techniques for placing people on a continuum in relation to one another, in relative and not in absolute terms (p. 121).

Lazar et al. (1971a) commented that attitude scales were:

> Comprised of statements of varying degrees of negative and positive intensity regarding the attitudinal referent, and the endorsement of the statement serves as the basis for inferring the existence of positive or negative evaluations on part of the person completing the scale (p.2).

Need and Significance

There are no current federal guidelines or criteria formulated for the preparation of the regular, nonhandicapped student body to receive the special student in the mainstreaming process. According to Johnson and Johnson (1980), constructive student-student relationships are probably an absolute necessity for maximal achievement, socialization, and healthy development. This researcher believes the literature and investigation will support the contention that by not preparing the regular student to receive the handicapped, the success of the integration program is greatly hindered. The participants at the National Association for Retarded Citizens Phoenix Conference (1980) felt that the key to successful interaction between handicapped and nonhandicapped students is an understanding of

the broad principles which govern the interaction of any two groups. The absence of some form of educational process for the nonhandicapped student provides for the possibility of psychological damage to the handicapped and a negative experience for the nonhandicapped.

Shirley Cohen (1977) forewarned the educational community in her conclusion:

> We are entering a period that cries out for creative development in educational programming to foster positive attitudes toward the disabled. The spread of the concept of mainstreaming has created both a need for this kind of programming and receptivity toward it on the part of general educators. This task may represent a significant challenge for educators in the next decade (p. 19).

The intent of this study is to demonstrate that exposure to appropriate information about the handicapped will have a favorable, positive effect on the attitudes of the nonhandicapped, thereby enhancing the chances for success of the process. Assisting the nonhandicapped student to form positive attitudes toward the handicapped through the educational process will promote positive reception of the handicapped, thereby promoting the success of the entire program.

Providing this information for educators and legislators may encourage establishment of educational programs for the nonhandicapped student population

and/or create an interest in further study. Dr. Rachel M. Lauer (1967), Chief School Psychologist of the New York City Board of Education, has proposed that our major task is:

> ... that of helping the normal group increase its capacity to include, rather than exclude, to cope with rather than to reject an ever-broadening range of individual differences (p. 9).

The results of this study will add to the search for effective methods to break down barriers of uncertainty and prejudice on the part of peers. Until disabled persons are seen as individuals who, like all people, have differing skills, interests, and personality traits, the ultimate outcome of legislation mandating integration and equal opportunity will be unpredictable. Unless the nonhandicapped are convinced that the handicapped have similar needs as the nonhandicapped and that everyone is more alike than different, handicapped persons will continue to bear the consequences of unfavorable expectations and fear on the part of persons who control their life opportunities (Donaldson, 1980).

CHAPTER II

Related Literature

A search of the literature has made it abundantly clear that there is not only an enormity of attitude studies, but also a proliferation of sources. It is evident that the volume of studies conducted since the turn of the century necessitated a division of this chapter into five major facets:

1. A discussion on attitude theory,
2. An overview of attitude measurement instruments,
3. A list of various intervention techniques,
4. A brief discussion supporting film as an intervention technique, and
5. A citing of studies relating to nonhandicapped student attitudes toward the handicapped with the use of film as an intervention technique to enhance positive attitude.

Attitude Theory

It is not the purpose of this investigation to provide a complete history of the concept of attitude. In addition, this study is not intended to enter the debate involving those researchers favoring or disfavoring the unidimensional or multidimensional approaches to defining attitude. The basic intent of

this discussion is to provide information which may improve the understanding of the term attitude; the concept which is being evaluated in this study. There is no need to add to the hundreds of existing definitions at this time, for as Gordon W. Allport (1935) aptly points out, " ... attitudes today are measured more successfully than they are defined" (p. 828).

It must be stated from the beginning that attitudes just do not happen. They are an integral part of the socialization process. In the development of man, attitudes significantly influence responses to cultural products, to other persons, and to groups of persons (Shaw & Wright, 1967). Attitudes evolve from personal experiences and interactions and are based on accepted social norms and values (Brant, 1979). Although it is a complex difficult concept to define, it has been defined and refined by many. As might be expected, because the term signifies many things to many people, the meaning is somewhat indefinite and its scientific status called into question (Allport, 1935). However, attitude research has occupied a central position in social psychology for a considerable time (Yuker et al., 1970).

One of the earliest definitions of attitude was proposed in 1918 by Thomas and Znaniecki. They defined attitude as:

> A mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related (p.28).

After examining more than one hundred definitions, Allport (1935) identified a common thread running through the multifarious definitions. He found that each investigator regarded the preparation or readiness for response as an essential feature in determining their concept of attitude.

This basic conviction that attitude is not behavior but a precondition of behavior persists to the current time. It has generally been accepted that attitude is incipient and preparatory rather than overt and consummatory. Supporting this doctrine, the distinctive researcher L.L. Thurstone (1931) viewed attitude as a relatively simple, unidimensional concept. He referred to attitude as " ... the affect for or against a psychological object" (p. 261). He stated that in his study, attitude was used:

> To describe potential action toward the object with regard only to the question whether the potential action will be favorable or unfavorable toward the object (p. 261).

In 1931, Bogardus followed the unidimensional trend stating that, "An attitude is a tendency to act toward or against some environmental factor which

becomes thereby a positive or negative value" (p. 5). He continued by stating, " ... atttitudes are as numerous as the objects to which a person responds" (p. 54). Remmers (1954) emphasized that attitudes are " ... theoretically a component of all behavior, overt or covert" (p. 5).

In Green's opinion (1954), the concept of attitude is a hypothetical variable abstracted from the many statements and actions that an individual makes with respect to a given object. Kretch, Crutchfield and Ballachey (1962), preferring a more traditional viewpoint, proposed that an attitude is:

> An enduring system of positive or negative evaluations, emotional feelings and pro or con action tendencies with respect to a social object" (p. 177).

In 1966, Jahoda and Warren attempted to clarify the issue by indicating that attitudes determine what individuals will attend to in the multitude of environmental stimuli and how they will think and react. However, Fishbein (1967), asserted that there is still little, if any consistent evidence supporting the hypothesis that knowledge of an attitude of the individual toward some object will allow one to predict the way he will behave with respect to the object. He also observed that the multidimensional view has led to investiga-

tions of relationships between attitude and behavioral intentions, but it has not contributed very much to our understanding of the specific relationships between attitude and behavior. Fishbein (1967) further proposed that beliefs and behavioral intentions cannot be viewed as parts of attitude but as independent phenomena that are related to and serve as indicants of an individual's attitude.

Oppenhein (1966) acknowledged that most definitions seem to agree that an attitude is a state of readiness, a tendency to act or react in a certain manner when confronted with a certain stimuli. This view is further supported by Hovland, Janis and Kelly (1953); and Kretch et al. (1962). Sherif and Contril (1947) also consider attitudes to have a specific referent or a special class of referents. Oppenheim (1966) further stated that, "Attitudes are abstractions reinforced by beliefs and often attract strong feelings that will lead to particular forms of behavior" (p. 106).

Kretch et al. (1962) and Zimbardo and Ebbeson (1970) conceptualized attitudes as having distinctive affective, cognitive, and behavioral components. The affective component is said to consist of an individual's evaluation of, liking of, or emotional response to some object or person. The cognitive component is concept-

ualized as an individual's beliefs about or factual knowledge of an object or person. The behavioral component involves the person's overt behavior directed toward an object or person.

Fleming and Levie (1978) point out that while attitudues are latent and not directly observable in themselves, they do act to organize or provide direction to actions and behavior that are observable. They remarked that attitudes vary in direction, degree, and intensity. They suggest that the direction of attitude is its negative or positive characteristic with the degree being the amount of positiveness or negativeness. They state that the intensity is the amount of commitment with which a position is held.

Lipsky (1981) concurred with Fleming and Levie (1978) that attitudes generally refer to a disposition to act, an evaluative response, an affective dimension, a drive-producing response, or a combination of two or more of these tendencies. Osgood, Suci and Tannenbaum (1957) support the concept that attitude is an evaluative response. Osgood et al. (1957) further state that they regard an attitude to be an evaluative reaction based upon evaluative concepts which are closely related to other cognitions and to overt behavior.

As one can readily see from a review of the literature, the initial relatively simple unidimensional concept has grown into its present-day formulation as a complex, multidimensional conception consisting of affective, cognitive and conative components (Fishbein, 1967). Also, it is evident from the above documentation that attitudes cannot be directly observed, only inferred and, as Allport (1935) has said:

> Unless attitudes are admitted, it is impossible to account satisfactorily either for the consistency of any individual's behavior, or for the stability of any society (p. 305).

Many writers have emphasized the importance of attitude theory by defining the discipline of social psychology as the scientific study of attitudes (Bogardus, 1931; Folsom, 1931; Thomas & Znaniechi, 1918). Bernard (1930) accentuated the eminence of attitude theory by proclaiming that attitudes form the basis of all language and communication. He said:

> In them is explicit all finished social behavior and through them practically all social adjustment is consummated. Public opinion is the highest form of collective attitudes (p. 305).

Allport (1954) exemplified prominence by expounding that:

> However they might disagree upon the nature of attitudes as they appear in consciousness, all investigators, even the most orthodox, come to admit attitudes as an indispensable part of their

psychological armamentarium (p. 44).

With the expressed importance these notable researchers have placed on attitudes and the quality of impressive support for their claims, it appears that it would be possible to argue persuasively that in the final analysis everything in life depends on the attitudes of each individual as well as group.

Although attitudes are often said to include all three components, affective, cognitive and conative, it is usually only evaluation of the affective component that is measured and treated by researchers (Fishbein, 1967). The concepts and beliefs learned by nonhandicapped middle school students (grades six - eight) about the handicapped are the affective components of attitude being evaluated in this study.

Measurement of Attitudes

It has long been recognized that "... to study attitudes requires that they be measured" (Shaw & Wright, 1967, p. 14). Also, it has generally been accepted that attitudes can and should be measured (Allport, 1935; Guttman, 1944; Likert, 1932; Thurstone & Chave, 1929). As Shaw and Wright (1967) noted, without incorporating attitude functioning, no theory of social behavior would be complete. They further commented that they consid-

ered it doubtful that complex social behavior could be predicted without knowledge of attitude.

Dr. Walter K. Lindenman stated in an overview for the Council for the Advancement and Support of Education (1977), that, "Attitude research is the essential first step toward improved communications with any audience." The Council concluded that unless the opinions of the target group can be measured, it may be difficult, if not impossible, to effectively offer advice, information, and suggestions specifically related to identified needs (Council for the Advancement and Support of Education, Washington, D.C., 1977). "Attitudes and attitude measurement are a critical component of facilitating a more complete understanding of teaching and learning" (Simonson, 1979a, p. 11). Although attitude measurement is not as refined as one would possibly like, it is considered essential for making predictions about individual behavior. As Henderson, Morris, Fitzgibbon, Lyons, and Taylor (1978) have said:

> Most likely even if the evaluation task cannot claim great precision or exactness, it can be done well enough to help people make informed education decision (p. 13).

Since Bogardus introduced the Social Distance Scale in 1925, investigators have applied numerous and varied techniques to measure attitudes (Yuker, Block &

Young, 1970). In most cases, the main purpose of these studies was to survey attitudes or to investigate specific hypotheses about attitudes toward specific objects. Consequently, investigators in this field have tended to develop simple and untested instruments for eliciting attitudes (Shaw & Wright, 1967). Many of the instruments are not sophisticated from a psychometric point of view and frequently little evidence has been presented for reliability or validity of either individual items or test scores (Horne, 1980). A review of a number of these instruments is provided by Yuker et al. (1970) in Chapter II of their monograph and by Marcia D. Horne (1980) in her paper for ERIC Clearing House on Tests, Measurement and Evaluation. Yuker et al. (1970) warn that many of these instruments have limited utility and studies using them should be interpreted with caution.

It is necessary to limit the scope of this part of the investigation to a brief characterization of the types of measures and the most frequently used methods of measuring attitude as they pertain to the disabled because of the multitudinal techniques that have evolved during the last fifty years.

Yuker et al. (1970) contend there are four general

categories of measurement:

1. Nonscored instruments (unstructured and structured)
2. Simple scored scales
3. Attitude scales
4. Other scorable techniques

Nonscored Instruments

The unstructured questionnaire and interview schedule are the most common forms of nonscored instruments (Donlon, 1974; Horne, 1980; Simonson, 1979a). They are usually used in attitude surveys with the data treated in terms of frequencies or types of responses for each item. The unstructured questionnaire continues in use, particularly for surveys of employer attitude toward disabled workers (Barton, Colardarci, & Carlson, 1954; Garrett, 1964; Jennings, 1951). In such measures the respondents are asked direct questions about their attitude toward a specific object.

The simplest of the nonscorable structured schedules consists of items with two-point response categories as yes-no, true-false, and agree-disagree. The complexity of this technique progresses to three-point response categories such as liking-disliking-indifferent, to five-point response categories ranging from the ex-

tremes of each trait investigated through the average (Donlon, 1974; Simonson, 1979a). The structured non-scorable two category scales are inadequate for statistical analysis and the assessment of attitudes (Saunders, 1969).

Included in the nonscored category are instruments as rank-order scales, picture projective techniques, the adjective and personality check-lists, and the sociometric choice technique (Cirirelli, et al., 1972; Horne, 1980; Simonson, 1979a; Szuhay, 1961). These techniques are usually time consuming, expensive and unreliable (Epstein & Shontz, 1961). A basic weakness of these nonscorable instruments is their instructibility to parametric statistical analysis. They do not lend themselves to inferential statistics (Saunders, 1969).

Simple Scored Scales

Some investigators devised scales resembling Thurstone and Likert Attitude scales in format to measure specific rather than general attitudes. Items and point rating vary in number but the usual intent is to provide a scorable measure of positive-negative attitude toward a specific disability. These differ from the nonscored instruments in that an attempt is made to weigh and score individual responses.

Generally, acquisition of reliability and validity data is not attempted and the quality of the measuring instruments is often of less quality than it would have been if existing scales had been used (Shaw & Wright, 1967).

Total response rather than item response became meaningful with the advance from nonscorable instruments to the simple scored instruments. The inadequacy of the simple scored instrument is mainly due to the lack of an equal interval unit of measurement (Saunders, 1969).

Attitude Scales

Of all the many ways of assessing attitudes, the attitude scales are considered the most sophisticated (Oppenheim, 1966). By using a more scientific approach to measurement, Bogardus (1925), Thurstone (1929), and Likert (1932) have made possible psychometrically elaborate measures of overall attitudes which can be standardized for use in a variety of studies (Yuker et al., 1970). The development of attitude scales achieves interval measurement from equal appearing intervals along a continuum.

The most frequently used methods of measuring attitude measure the acceptance of evaluation statements about the attitude object (Guttman, 1944; Likert, 1932). The attitude toward the object is inferred from

the statements endorsed by the subject (Shaw & Wright, 1967). The scales measure the positivity-negativity of the affective reaction. The two most commonly used attitude scales are probably the method of equal intervals developed by Thurstone and Chave (1929) and the method of summated ratings developed by Likert in 1932 (Edwards & Kenney, 1946).

Thurstone's method has been considered by many to be time-consuming and cumbersome (Edwards & Kenney, 1946; Oppenheim, 1966; Shaw & Wright, 1967; Yuker et al., 1970). This technique has also received much criticism because of the need for and the difficulty of acquiring judges (Thornburg, 1980). Edwards and Kenney (1946) have questioned the need for the judges as a prerequisite for the construction of an adequate attitude scale. Furthermore, Edwards and Kenney (1946) have shown that the reliability coefficients of scales constructed by the Thurstone method are not as high as the scales constructed by the Likert method.

The Likert technique has gained in popularity probably because it is less laborious, eliminated the need for judges and correlates well with the Thurstone scale (Edward & Kenney, 1946; Oppenheim, 1966). Apart from their relative ease of construction, these scales

also provide more precise information regarding the respondent's degree of agreement or disagreement. Respondents usually prefer this to a simple agree/disagree score. In addition, it becomes possible to include items whose manifest content is not obviously related to the attitude in question. The subtle and deeper ramifications of attitude can then be explored (Oppenheim, 1966).

The Guttman scales (Scalogram-Analysis) are probably not as popular as the Thurstone or Likert scales because they are often specific to a given population and may not scale for populations different from that used in their development (Shaw & Wright, 1967). These scales are most useful when it is desired to examine small shifts of changes in attitudes, perhaps in response to only a single item (Oppenheim, 1966). The procedures in using the Guttman scale are laborious and often there is no certainty that in the end a usable scale will result (Oppenheim, 1966). Moreover, the procedure becomes even more tedious and fraught with errors when dealing with large numbers of respondents and items (Klineberg, 1954). Another limiting factor is the lack of sufficient acceptable validation data (Henderson et al., 1978; Horne, 1980; Klineberg, 1954; Op-

penheim, 1966).

Simonson (1979a) observed that of the many types of instruments available to measure attitudes, the Agreement, or Likert-type scale seems to possess most of the characteristics of a good measure. This technique uses statements about the attitude object th are either clearly favorable or unfavorable and each subject responds to each test item according to their perceived attitude intensity toward the statement. The major criticism of the Likert technique appears to be that it lacks reproducibility because the same score may be obtained in different ways (Oppenheim, 1966).

The attitude scale used in the present study is the Attitude Toward Disabled Persons (ATDP) instrument which was developed at the Human Resource Center in Alberson, New York by Harold E. Yuker, J.R. Block and D.T. Campbell in 1959. The ATDP is a refinement of the Bogardus Scale with the addition of Thurstone's paired comparison technique and Likert-like summated ratings. The ATDP has relatively high reliability and well documented validity. The instrument permits inferential statistical analysis and parametric measurement and is most suitable for investigating attitudes toward the disable in general. The ATDP is discussed in further

detail in Chapter III (see page 59).

Other Scorable Techniques

Most of the measures included in the final category of other scorable techniques are unique and highly specialized. A preponderance of one-shot studies and single disability investigations is evident in the literature. Often, the attitude measurement used in these instruments was based on subjective judgment rather than objective data (Saunders, 1969).

Osgood, Suci and Tannanbaum (1957) developed one of the better known techniques called the Semantic Differential Rating Scale. They hypothesized that man had semantic space which could be defined by different pairs of opposites. This method, however, has not proven as effective nor is it used at frequently as the Likert or Thurstone rating scales (Horne, 1980; Yuker et al., 1970).

Another fairly well known method of measurement, the Q-Sort technique, tends to focus on one person at a time. Because of this drawback, is time-consuming and expensive. It is not considered as effective or applicable as either the Likert or the Thurstone scales (Donlon, 1974).

Some of the other less popular rating scales that

either reported no reliability or validity data or were considered experimental measures only, were: The Children's Picture Sociometric Attitude Scale developed by Szuhay (1961); Siller's Feeling Check List (1963); The Revised Semantic Differential Rating Scale (Siller & Chipman, 1964); and the Berger Sentence Completion Test (1951).

Shaw and Wright (1967) alert the researcher that while these scales may appear to have face validity, empirical data relating to their reliability or other types of validity are severely limited. Yuker et al. (1970) further advise that few of these measures have been used in more than one study.

A summary from Henderson et al. (1978) appears appropriate for the conclusion of this part of the discussion:

> An attitude is not something we can examine and measure in the same way we can examine the cells of a person's skin or measure the rate of her heartbeat. We can only infer that a person has attitudes by her words and actions (p. 1).

Intervention Techniques

There is considerable evidence in the literature to show that a variety of intervention treatments and instructional approaches can be effectively used to modify attitudes toward handicapped persons (Baker et

al., 1981). However, few can be as quickly administered with as relatively little preparation and comparable ease as film. Few techniques can reach as many students at one time and provide the desired results as economically reasonable as the use of film. Nonetheless, many researchers have and continue to use a wide variety of treatments. Therefore, the following are some of the intervention methods used to modify attitudes of nonhandicapped toward the handicapped by various researchers:

1. Group discussions about disabilities (Baker et al., 1981; Cleary, 1976; Donaldson & Martinson, 1977; Gottlieb, 1980; Miller & Briggs, 1958; Monson & Shurtleff, 1979; Siperstein et al., 1977).
2. Panel discussion by disabled persons (Donaldson & Martinson, 1977; Kierscht & Du Houx, 1980).
3. Role playing (Cerreto, 1977; Clore & Jeffre, 1972; Dahl, Horsman, & Arkell, 1978; Leyser & Gottlieb, 1980; Miller, 1980).
4. Disability simulation (Lipsky, 1981; Marsh & Friedman, 1972; Wilson & Alconn, 1969).
5. Live presentations by disabled persons (Byrd & Roden, 1981; Cohen, 1977; Croft et al., 1969; Donaldson & Martinson, 1977; Lazar et al., 1971b; McKerracher, 1982).

6. Audio-visual programs, T.V., Video tapes, Films (Baker et al., 1981; Bryan & Schwartz, 1971; Donaldson & Martinson, 1977; Forader, 1970; Lipsky, 1981; Miller, 1969; Monson & Shurtleff, 1979; Sedlick & Penta, 1975; Simonson, 1980; Siperstein, et al., 1977; Westervelt & Turnbull, 1980; Wisely & Morgan, 1981).

7. Various curricular approaches (Bond, 1978; Clore & Jeffrey, 1972; Cohen, 1977; Donaldson & Martinson, 1977; Gellerman, 1959; Hamrin, 1981; Handlers & Austin, 1980; Harte, 1980; Karniski, 1978, Lazar et al., 1976a; Marsh & Friedman, 1972; Menke, 1982; Rapier et al., 1972; Ross & Freelander, 1977; Rusalem, 1967; Shortridge, 1982; Simpson, Parrish & Cook, 1976; Siperstein & Bak, 1980; Wyrick, 1968; Yerxa, 1971).

8. Integrated school experience (Agness, 1980; Anthony, 1969; Bucich-Naylor, 1978; Cole, 1971; Evans, 1976; Fox, 1979; Friedman, 1975; Hall, 1975; Handlers & Austin, 1980; Kutner, 1971; Langer et al., 1976; Mosely, 1973; Rapier et al., 1972; Rusalem, 1967; Voeltz, 1980; Weinberg, 1978).

Joy Donaldson (1980) provides a review of research on the modification of attitudes toward disabled persons

in an article for Exceptional Children. Yuker et al. also provide a lengthy list in a monograph (1970).

Film As An Intervention Technique

In this inquiry, an examination of attitudinal change toward the physically handicapped will be explored utilizing a brief film as the sole intervention technique. The search of literature encompassed innumerable studies pertaining to attitude toward the handicapped and other minority groups and the effect of various intervention techniques (Barker et al., 1953; Chesler, 1965; Cowen, Underberg & Verrillo, 1958; Rose, 1954). However, the major intent in this discussion will be to focus on research reporting effects of film presentations on attitudes of nonhandicapped children toward the physically handicapped.

Investigations concerned with the influence of film on the attitudes of children toward concepts depicted in the film began as early as 1931 when Thurstone discovered that film could change attitudes in both a positive and negative direction. Surprisingly few studies were found by this researcher specifically designed to ascertain effects of film on the attitudes of the nonhandicapped toward the handicapped since Thurstone's innovative research.

Thurstone (1931) reported that motion pictures

had a definite lasting effect on the social attitudes of children. Charter (1933) also found that desired attitudinal outcomes were produced by the viewing of film (a substantial number of other research studies have verified this claim; Simonson collected 50 studies in 1980). However, it was not until Greenhill (1957) evaluated the impact of film on mental retardation that any studies appeared regarding attitude toward the handicapped. Apparently there were no further studies until 16 years later in 1973 when Jack Bond and Allen Rosing attempted to measure the instructional effectiveness of films. In the same year (1973) a study by Alese evaluated the impact of a film about retardation.

Michael Simonson (1980), in a review of the literature (50 studies), found that generally, researchers reported viewers enjoyed film as a communication mode. Simonson also discovered the more useful a learner perceived the information presented in a film, the more favorably they would react to the film and learning would be increased. Simonson (1980) also reported studies in which students preferred filmed instruction over written instruction. Ganschow et al. (1970) reported that vocational students reacted more favorably to filmed instruction than to the same information presented in

written form. Miller (1969) found in a research of 30 studies that the ability of a film presentation to alter existing attitudes of viewers coincided with an increased level in emotional involvement of viewers and produced positive attitudinal responses.

Simonson (1979a) noted that it has become increasingly apparent to many involved in educational technology research that one of the major consequences of mediated instruction is not directed toward knowledge gain, but rather, " ... the instilling of certain attitudinal positions in students not necessarily found when media are not used in teaching" (p. 1). He also advised that in approximately one-half of the experiments reviewed, the attitude toward subject content by students was either favorable or changed in a desired direction after instruction was delivered primarily by media. Simonson (1980) summarized, " ... attitude changes were more often than not produced in viewers of persuasive films" (p. 500). He concluded by stating, "... motion pictures would seem to have been a viable mechanism for delivering information when attitude outcomes are important" (p. 500).

Few studies utilizing film as an intervention technique to affect change in attitude toward the

handicapped have appeared in the literature since Greenhill's (1957) evaluation. It has only been since the 1970's that researchers concerned with the acceptance of the handicapped by their peer group have heeded Thurstone's (1931), Charter's (1933), and Greenhill's (1957) advice to use film as an effective teaching technique. In spite of the evidence supporting the use of film, only four studies utilizing film to modify attitude of children toward the handicapped were found. Even more surprising, there were no studies found with subjects of the same age range as the subjects in the current study. Since the complete implementation of Public Law 94-142 on September 1, 1980, it appears little has been done to provide data which would help prepare the nonhandicapped students to receive their handicapped peers in an integrated educational setting. Thus, the search of the literature highly supports the need for this research project.

Related Studies

Of the four studies reviewed in the literature (Hafer & Narcus, 1979; Ishkawa & Fujita, 1978; Mulkey, 1981; Westervelt & McKinney, 1980), only two involved children below college level (Mulkey, 1981; Westervelt & McKinney, 1980), and just one was found using subjects

between elementary and college levels (Mulkey, 1981). The subjects of Mulkey's study are the closest to the age and grade level of the subjects used in this study.

Ishkawa and Fujita (1978) and Hafer and Narcus (1979) examined the effects of film with undergraduate university students using the Attitude Toward Disabled Persons Form O as the measuring instrument. This is the form of the ATDP used in the present study (see page 59).

Ishkawa and Fujita (1978) hypothesized that physically handicapped individuals who have socially acceptable personality traits are more favorably received than those who have undesirable traits. Using two 8mm films as the stimuli in their study, these researchers portrayed a physically handicapped person with undesirable personality traits in one film and showed a physically handicapped person with desirable personality traits in the other. The authors used a translated version of the ATDP Scale for measurement, administering the scale to 135 students of the University of Tsukuba, Japan. The hypothesis that the attitudes of the nonhandicapped students toward the physically handicapped students with desirable traits were more favorable than toward those who displayed undesirable personality traits was accepted.

The result of comparing the total score of the ATDP Scale for male and female in each group was that the females consistently showed a higher tendency toward acceptance, but there was no significant difference. This study appears to support the contention that personality traits of the physically handicapped are an important factor in developing acceptable attitudes of the nonhandicapped. Ishkawa and Fujita concluded in their summary that while the nonhandicapped must strive to understand the physically handicapped better, the handicapped must gain desirable personality traits and socially acceptable behavior in their own development.

Although the subjects in this study were university students of another country and the purpose of the study was somewhat removed from the purpose of the present study, the results warrant attention because they signify the importance of the use of film in research and as a technique to affect change in attitude. In addition, the study also supports the use of the ATDP as a research measurement instrument.

The other study in which the subjects were university students (Hafer & Narcus, 1979), examined the effects of two movies, Like Other People (about a cerebral palsy couple) and a Laurel and Hardy comedy,

The Music Box, on attitudes of 36 undergraduates, as measured by the ATDP forms A and B. The results were surprising in that the first posttest indicated that a significantly more negative attitude was induced in the pretested participants who viewed Like Other People. An equally surprising result occurred in the second posttest administered six weeks later when the participants exhibited a more favorable attitude. The authors speculated that the initial negative result might have been attributable to the stimulus content of the film. The film maker intended to convey that the needs of the physically handicapped are similar to those of the non-physically handicapped but the film actually highlighted the physical limitations of the physically handicapped persons. However, it appears that whatever the cause for the negative impact, it was transitory in nature and dissipating over time. This may represent a kind of sleeper effect or delayed reaction, with the intended message of the film prevailing after a period of time (Allport, 1954).

This study appears to point out that educational films designed to advance positive attitudes toward disabled persons may do the opposite. Therefore, it cannot be assumed that a film will necessarily result in

the positive effect intended by its producers, or by those hoping to modify attitudes toward disabled persons in a more positive direction. Marilyn Hafer and Margery Narcus (1979) have brought attention to the importance of proper selection when deciding on programs utilizing film as an intervention technique. They have also provided additional support for the continued use of the ATDP as a research measurement instrument.

The experimental study of Sidney W. Mulkey (1981) of Florida State University is the closest to the present study by way of subject selection, design, treatment, and measuring instrument used. Mulkey's subjects were 195 elementary and secondary students grades six, nine and twelve. In his study, a pretest, treatment, posttest design was employed and the ATDP Scale was the measurement instrument used. The purpose of Mulkey's study was to investigate the effects of two treatments (film and discussion) on attitude change toward disabled persons and retention six weeks after treatment administration. The findings indicate that both the film and discussion produced significant results between pretest and follow-up mean scores. There was no significant difference indicated when the treatments were compared alone. Neither the film nor the

discussion group mean scores were significantly different when the posttest and follow-up scores were compared.

When the analysis of covariance was performed on the posttest scores with pretest scores as the covariate, there were greater positive significant differences found by grade level. The sixth and ninth grade students showed greater positive response to the discussion than to the film; however, the film had a greater positive response on the students in grade 12. Although retention losses occurred over a six week period for both treatments, there was a greater retention of positive attitude the higher the grade level among students who viewed the treatment film. The major contribution of this study appears to be film can affect positive change in attitude and that retention of the positive change is greater the higher the grade level. However, there are other variables that should be considered when examining the results, such as the difference of maturation level, education, and life experience of the older students.

The primary object of the next study is similar to the goal for the present study: to evaluate the effects of a brief film designed to point out how the aspirations

and interests of handicapped children are similar to those of nonhandicapped classmates. The results acquired in the study by Van D. Westervelt and James D. McKinney (1980) agreed with the results of several studies suggesting that increasing perceived similarities between handicapped and nonhandicapped individuals may facilitate attraction and thereby modify misconceptions and unfavorable attitudes (Asher, 1973; Byrne, 1961; Byrne & Griffitt, 1966). These findings support this author's contention that a major factor affecting the success of mainstreaming children with physical disabilities is whether or not classmates receive, understand, and interact with handicapped children in a prosocial manner. Evidence previously demonstrated has indicated that elementary students express less than favorable attitudes toward the physically handicapped children (Billings, 1963; Centers & Centers, 1963; Richardson, 1970). Westervelt and McKinney (1980) agree with the experience of this researcher that unless intervention techniques are instituted, true mainstreaming may not occur.

In their study, Westervelt and McKinney (1980) used a 13 minute film (same length as the film used in the present study) showing handicapped children in

wheelchairs participating in physical education and classroom activities with nonhandicapped children. Their findings were supported by Baker et al. (1981) who found that a program of relatively short duration can significantly alter general and specific attitudes in a positive direction.

Westervelt and McKinney (1980) used as a sample 98 (45 boys, 53 girls) fourth grade students with a mean age of 116 months (SD=8 months). As a pretest, each child was given one Social Distance Questionnaire which is considered more appropriate for younger children than the ATDP (Friedman, 1975; Richardson, 1970; Westervelt & McKinney, 1980). The questionnaire was administered while the children were viewing the photo of a wheelchair bound child. Two days after the pretest, the experimental group viewed the 13 minute film. In an immediate posttest, the children responded to two Social Distance Questionnaires. Two Activity Preference Scales were also administered: one to assess self interests and the other to assess their perception of the interests of the handicapped child. The measures were repeated nine days after the film was shown.

The results of this experiment revealed no evidence to suggest widespread rejection of the

physically handicapped in the sample of the fourth graders used in this study (Richardson, 1970). Analysis of variance performed on the Social Distance Questionnaire scores for the experimental and control groups suggests a significant main effect due to treatment. Students viewing the film were more attracted to the wheelchair bound child than were the control group children. However, attraction to a child with crutches and braces was not enhanced. The effects of the film were not apparent at the nine day posttest.

Westervelt and McKinney (1980) concluded that apparently exposure to the film alone may be useful to show children immediately before they have a physically handicapped child join their class. However, the film alone does not appear to be sufficient to answer all questions a nonhandicapped child might have about a handicapped peer. In addition, the film's effect does not appear to be permanent.

Although the studies were few in number, the contributions made by these authors have not only assisted this researcher, but should help promote future research. These writers have emphasized the importance of film as an intervention technique and have accentuated the need for preparation of receiving

students in the mainstream to accept the handicapped in a favorable way (Gottlieb & Davies, 1973; Wallach, 1974). Wallach (1974) highlighted this need for preparation of the mainstream students in the following statement:

> Before our handicapped children can enter the mainstream we try to prepare them in every way possible. But, we must also prepare the mainstream itself, lest our handicapped children be mistreated and come to harm in it (p. 4).

Summary

In this chapter a discussion on attitude theory was presented to provide information for a better understanding of the complex, multidimensional nature of attitude and the difficult challenge to define the concept. Of the multitudinal definitions currently presented in the literature, a few of the more prominent were selected and briefly presented. The definition offered by Shaw & Wright (1967) has been accepted for use in this study and is delineated in Chapter I.

Evidence was presented to verify the need for measurement of attitudes with supporting documentation affirming that attitudes can, in fact, be measured. The structural characteristics of nonscored instruments, simple scored scales, attitude scales, and other scorable techniques were explicated. A wide range of

formats presented varied from simple unstructured interview schedules or questionnaires to Likert scales; from nonprojective social distance scales, adjective check lists, Q-sorts and sociometric choice devices to sentence completion and picture story projectives.

The chapter concludes with the citing of the limited number of studies available in the literature pertaining to the use of film as an intervention technique to affect change in attitude of the nonhandicapped children toward the handicapped. The search made evident that a vacuum exists in the research in spite of sufficient evidence indicating the value of film as an effective teaching and intervention technique.

Considering that no previous research could be found measuring the attitudes of nonhandicapped sixth-seventh-eighth graders as a group toward the handicapped before and after a film treatment, it appears this study will be of value to those involved with the education of students in this age group. The results of this study should also be beneficial to educators concerned with the normalization process of all handicapped children.

CHAPTER III

Methodology

Overview

The review of literature presented in Chapter II tends to substantiate the patent need for research pertinent to effective techniques in modifying attitudes of students toward their handicapped peers. The need is particularly evident at the middle school level. The sparse number of specific research studies with experimental designs using film as an intervention technique was significantly obvious. To assist in satisfying these needs, this investigation is concerned with the collection of data supporting the use of film as a method to alter attitudes of nonhandicapped children toward the handicapped in a positive and favorable direction.

Subjects

The subjects consisted of two hundred twenty-seven students, 122 females and 105 males, with a mean age of 12.10 years, enrolled at a middle school comprised of grades six, seven and eight. They were selected on the basis of their inclusion in the school's social studies program during the 1983 fall semester. The subjects were students in twelve social studies classes consisting of 62 sixth graders in three classes, 65 seventh graders in

four classes and 100 eighth graders in five classes (see Table 1).

Table 1
Subject Distribution
by
Grade and Classes

	Participating Students per class CLASSES					Classes per Grade	Students per Grade
GRADE	1	2	3	4	5		
6	20	21	21			3	62
7	15	15	22	13		4	65
8	23	18	22	19	18	5	100
TOTAL						12	227

The total school enrollment of 279 students has a racial distribution of 87% white, 10% Asian, Oriental or Pacific Islands, 2% Black and 1% Hispanic (see Table 2).

Table 2
Racial Distribution
of
Total School Enrollment

RACE	%
White	87
Asian, Oriental or Pacific Islands	10
Black	2
Hispanic	1
TOTAL	100

Fifty-two students from the total school enrollment of 279 were not included in the tabulations for this study. To avoid sampling bias, eight students participating in a special section social studies class and fourteen students enrolled in the Resource Room Program were not administered the pretest or posttest ques-

tionnaires. As a control measure, three physically handicapped students were not included in the summations to ensure that only the attitudes of the nonhandicapped students were being measured (Oppenheim, 1966; Yuker et al., 1960).

Procedural attrition further eliminated nineteen students who were either absent (14) or unavailable (five) because of other school activities for the pre-test and/or posttest administration (Campbell & Stanley, 1963). Six forms were not included because they were incomplete or improperly completed (Campbell & Stanley, 1963; Yuker et al., 1970), and finally, two students did not participate because of parental objections (see Table 3).

Students reside in a residential suburban village of approximately 5774 people located on the Hudson River 20 miles north of New York City, New York. This school district could probably be best classified as upper-middle-class with approximately 25% of its heads-of-household employed either professionally or technically (U.S. Census Bureau, 1980). Over 80% of the school graduates continue with post high school education. Only one student has dropped out of school prior to

graduation in the past five year period.

Table 3
Students
Not Included
In Statistical Analysis

REASON	NUMBER
Special Section Social Studies Class	8
Resource Room Program	14
Physically Handicapped	3
Absent for Pre and/or Posttest	14
Unavailable (Other School Activities)	5
Incomplete or Improperly Completed Protocols	6
Parental Objections	2
TOTAL	52

Instrument

Simonson (1979a) advised that once a specific attitude has been identified, the designer should

attempt to locate an instrument that will measure the relevant construct. Therefore, a scale specifically designed to measure attitudes toward disabled persons in general was selected for this study: The Attitude Toward Disabled Persons Scale (ATDP), Form O developed by Yuker, Block and Campbell in 1959 (see Appendix C).

The ATDP, Form O is a Likert-type scale containing 20 items with each statement suggesting that disabled persons are either the same or different from normal people. The respondents must indicate the extent of their agreement with each item by marking a number from -3 to +3 (six alternative responses along a line: "I agree very much," "I agree pretty much," "I agree a little," "I disagree a little," "I disagree pretty much," and "I disagree very much"). These alternatives are weighted +3, +2, +1, -1, -2, and -3 respectively. The scale results in a continuum of scores from 0 to 120 with a high score interpreted to indicate that the respondent sees the disabled person as relatively similar as nondisabled persons. A low score is interpreted as a negative attitude.

The ATDP is a relatively short, easy to administer and simply scored instrument critiqued by a number of investigators (Lazar et al., 1976b; Shaw & Wright, 1967;

Yuker et al., 1960) and probably used by more researchers than any other scale designed to measure attitudes toward disabled persons as a group (Oppenheim, 1966; Simonson, 1980; Yuker at al., 1970). The scale was subjected to extensive internal and external analysis by which items discriminating between high and low scores were selected for inclusion in the final versions. The data presented in the monograph was based on the administration of the scale to approximately 15,000 persons (Yuker et al., 1970).

Investigations of the ATDP's reliability have resulted in a median stability coefficient of +.73 for Form O. Equivalency reliability coefficients derived from the split half method for Form O range from +.75 to +.85 (Henderson et al., 1978; Oppenheim, 1966; Simonson, 1979a; Yuker et al., 1970). To establish validity with nondisabled persons, ATDP scores were correlated with measures of prejudice and with other variables shown to be correlated with attitudes of prejudices (Yuker et al., 1970). Investigations by the authors to ascertain if the ATDP could be falsified suggest that the ATDP is relatively not falsifiable since no significant differences were found between the scores faked vs. nonfaked administrations. It has also been found that neither social desirability nor acquiescence accounts for significant

portions of variance in ATDP scores (Yuker et al., 1970).

After reviewing the modifications and criticisms relating to the ATDP, Yuker et al. concluded that the ATDP scale will continue to be useful when a relatively reliable and valid easy to administer instrument is required to measure general acceptance of the disabled (Yuker et al., 1970). Henderson et al. (1978) agrees with the author's claim, adding that the ATDP seems sufficiently reliable and highly correlated with appropriate measures to make it a useful research tool when used with groups of respondents in attempting to understand the dynamics of attitude toward disabled persons.

Yuker et al. (1970) added two parallel forms, A and B, to the original ATDP, Form O. Each additional form contains 30 questions. The ATDP, Forms A and B were not considered for this study because of the additional time required to administer and it was the unanimous judgment of the classroom teachers involved in the project that the test contained unfamiliar words for the target group.

McKerracher (1982) found no difficulty with administering the ATDP Form O to seventh-grade students. The results of an item analysis in his study were found to

be satisfactory and the scale was considered suitable for use with this age group. The subjects in the present study had little or no difficulty reading, following directions, or satisfactorily completing the questionnaire. The consensus of the participating teachers was that the scale was appropriate for the age group being evaluated.

A general information sheet was added to the ATDP scale to allow the investigator an opportunity to gather general information, to number codes responses, and to provide supportive information for positive matching when comparing pretests and posttests (see Appendix D). Control measures were taken to eliminate the possibility of serial effects (Oppenheim, 1966) as a source of variation by creating a second ATDP, Form O (ATDP, Form O_2) with random changing of the sequence of questions on the original ATDP, Form O_1 (see Appendix E).

Scoring

The initial step in scoring the ATDP is to change the signs of the items with positive wording. A positive item is one which indicates that disabled persons are not different from nondisabled persons. On the ATDP, Form O_1, the items to be changed are: 2,5,6,11, and 12 and on Form O_2: 6,9,10,13, and 19.

The second step requires obtaining the algebraic sum of all the item scores and then changing the sign of the algebraic result. Once this has been completed, a constant of 60 is added, making all scores positive. The resulting score ranges from 0 to 120 with a high score reflecting positive attitudes (see Appendices F and G)

Experimental Design

Allport (1954) suggests a desirable design for evaluation research resembles the scheme presented in Table 4.

Table 4
Allport Desirable
Design for Evaluation
Research

	Dependent Variable	Independent Variable	Dependent Variable
Experimental Group	Measure of Prejudice	Exposure To Program	Measure of Prejudice
Control Group	Measure of Prejudice	No Exposure To Program	Measure of Prejudice

(Allport, 1954, p. 842).

Campbell and Stanley (1963) offer a similar plan identified as the Nonequivalent Control Group design. However, in their design the control group and the experimental group do not have pre-experimental sampling equivalence. Rather, the groups constitute naturally assembled collectives such as classrooms, as similar as availability permits, but yet not so similar that one can dispense with the pretest. Popham (1967) suggests that in educational research it is not always possible to have complete random sampling and if the researcher makes a strong attempt to keep from having biased samples, a complete randomization of subjects is not necessary. In this study, a random selection of intact classes was used rather than a complete randomization of subjects (Borg & Gall, 1973; Campbell & Stanley, 1963; Helmstadter, 1975; Isaac & Michaels, 1974). Therefore, this design served the purpose of this study and was selected by the investigator.

The Nonequivalent Control Group design is a widespread experimental design in educational research involving an experimental group and a control group. Each group is given a pretest and a posttest with the experimental group receiving the treatment (X). For the purpose of this study, the researcher modified the Nonequi-

valent Control Group design by adding a second form of the dependent variable to be administered as an alternative pretest and posttest.

Table 5 is a schematic representation of the Nonequivalent Control Group design as presented in Campbell and Stanley (1963, p. 47). The symbol X represents the exposure of a group to an experimental variable, the effects of which are to be measured by the dependent variable represented by the symbol O. The X's and O's in a given row are applied to specific persons. The left-to-right dimension indicates time sequence and the X's and O's vertical to one another are simultaneous. The dashed horizontal line indicates the control group and experimental group do not have pre-experimental sampling equivalence.

Table 5
Campbell and Stanley
Nonequivalent Control
Group Design

PRETEST	TREATMENT	POSTTEST
O	X	O
O		O

A model of the modified version of the Nonequivalent Control Group design as used in this study may be conceptualized as presented in Table 6.

Table 6

Modified Nonequivalent Control Group Design

PRETEST	TREATMENT	POSTTEST
O_1	X	O_2
O_2	X	O_1
O_1		O_2
O_2		O_1

In this model, the symbol X represents the exposure of an intact class to an experimental variable

(film), the effects of which are to be measured and the symbols O_1 and O_2 refer to the process of measurement. The design may be regarded as controlling the main effects of history, maturation, testing, and instrumentation. The differences for the experimental group between the pretest and posttest (if greater than that for the comparison group) cannot be explained by main effects of variables that affect both the experimental and control group.

The above Modified Nonequivalent Control Group design is similar to the design recommended by Allport (1954) except it allows for four dependent variable groups. The design involves two experimental and two control (or comparison) groups in a pretest posttest paradigm. The selection of this design was based mainly on the ability of this particular model to control extraneous variables such as the interactive effect of testing, the interactive effect of selection biases, and the reactive effects of experimental reactives (Campbell & Stanley, 1963; Saunders, 1969).

Film

The independent variable chosen for this study is a thirteen minute film, The Same Inside. This film was specifically produced for the March of Dimes-Birth

Defects Foundation to show that even though some children may appear differently on the outside from other youngsters, they have the same internal emotions and needs as other children (Vitale, 1983). The film was created to help raise the consciousness of the nonhandicapped school population in hopes it might help ease the mainstreaming of handicapped children into the public schools. This vicarious experience approach (Allport, 1954) invites the viewing student to identify with members of an out group. The film was chosen as the independent variable because the trend of evidence appears to favor the indirect approach for favorable results (Cook, 1950). Also, there is indication that film may be a milder invitation to identification and therefore more effective than the informational or project approach (Allport, 1954).

Procedure

On September 17, 1983, a letter requesting permission to use the Attitude Toward Disabled Persons Scale was sent to Dr. Harold E. Yuker, Provost and Dean of Facilities at Hofstra University. Dr. Yuker graciously consented by return mail (see Appendices H and I).

Prior to the administration of the ATDP, Form O[1] and the modified version ATDP, Form O[2], it was necessary to secure the permission and cooperation of the appro-

priate school administrators. Permission was granted by the Superintendant of the school district and the principal of the middle school selected for the study. Letters were sent to parents informing them about the study and requesting their permission to allow their child to participate in the project (see Appendix J).

The entire teaching staff was informed at a regular faculty meeting with full staff cooperation requested by the building principal. The investigator met with the four social studies teachers involved, explaining the project, reviewing procedures and mutually planning the logistics necessary to conduct the study. It was decided to keep the classroom setting as normal as possible with all administration of the pretests and posttests, as well as the treatment, handled by the regular classroom teacher (Campbell & Stanley, 1963; Isaac & Michael, 1974).

On November 14, 1983, all students were administered the criterion measure, either Form O_1 or Form O_2 of the ATDP scale during their regularly scheduled social studies period, excluding only those without parental permission. The pretest questionnaires were completed at the beginning of each period to reduce interference with the regular program as much as possible

and to minimize pressure on the attitude being measured (Thurstone, 1931).

Twelve intact groups of classes (Campbell & Stanley, 1963; Lindquist, 1940), participated in this study -- six as an experimental group and six as a control group (Allport, 1954). The six experimental classes were exposed to the thirteen minute film, The Same Inside, and the six control classes were not. The film is about four physically handicapped children of comparable age as the subject group. This design was utilized to determine if differences existed among groups on the basis of exposure to the film.

A standardized administration procedure was used as prescribed by Yuker et al. (1960). Instructions for the participants were read aloud by the teacher as the students read along silently, thereby helping the student to recognize possible unfamiliar words (see Appendix K). Students were reminded to answer all questions honestly. In addition, they were to be careful with the + and - signs before numbers and to write legibly. It was emphasized that students were to interpret statements any way they wished (Yuker et al., 1970). The teachers were also instructed not to discuss individual statements with the students. The teachers reassured

all participants that the questionnaire was not part of the regular program, that there were no grades, or right or wrong answers. Students were informed that all questionnaires were to be treated anonymously but each was to be treated seriously. The twelve classes were randomly divided whereby six received the ATDP, Form O_1 and six received ATDP, Form O_2. This procedure was reversed for the posttest administration.

On the following day, November 15, 1983, three classes (one sixth and two seventh grades) were randomly selected to view the film with the posttest administered immediately thereafter (Allport, 1954; Campbell & Stanley, 1963). The groups selected randomly for exposure to the experimental variable (film) may be considered fortuitous. The selection of only three classes at this time was necessitated because the entire eighth-grade was on a scheduled all-day field trip to Philadelphia. It was decided to show the film to the balance of three eighth grade classes on November 17, 1983. This was done to allow for follow-up discussions regarding the trip and due to possible student fatigue on November 16, 1983. The posttest questionnaire was completed by this group immediately following viewing the treatment film.

All completed questionnaires were gathered by the

regular classroom teachers and submitted to the investigator at the end of the school day. The investigator scored the questionnaires and submitted summaries of the results to a Board of Cooperative Education Services computer operator who performed the statistical tests.

The class means were used as the basic observations and treatment effects were tested against variations in these means. The analysis of covariance test (Lindquist, 1953) was used for the statistical treatment of this investigation, using pretest means as the covariant. A one-way analysis of variance test was applied to the data to test the significance of the differences between the means of the treatment and control groups after taking into account the correlation between dependent variables.

The hypothesis -- a comparison of the mean of the ATDP pretest scores with the mean ATDP posttest scores following exposure to a film was tested by multiple analysis t tests and by an analysis of variance. The results of the tests and an analysis of the data is presented in Chapter IV.

Summary

It was evident from the review of literature in Chapter II, that research data from experimental studies

using film as the independent variable is needed, particularly with the present target age group. This study will hopefully assist in satisfying these needs.

Two hundred twenty-seven, sixth, seventh and eighth-grade students were administered pretests and posttests using the ATDP, Form O$_1$ and ATDP, Form O$_2$ as dependent variables. One-half of the subjects, in class units, were exposed to a brief film prior to the posttest administration.

The experimental design utilized is a modified version of Campbell's and Stanley's (1963) Nonequivalent Control Group design which involves two experimental and two control groups in a pretest posttest paradigm. The subjects were administered the pretest, posttest and shown the film by their regular classroom teachers in regularly scheduled social studies classes. The pretest was administered to all participants on November 14, 1983. Three classes were shown the film the following day. The subjects were administered the posttests immediately following viewing the film. The remaining three classes were shown the film on November 17, 1983 following the same procedure. The control group of six classed did not view the film, but did complete pretests and posttests.

A comparison on the mean of the ATDP pretest scores with the mean ATDP posttest scores following exposure to the film were tested by multiple analysis t tests and by an analysis of variance. An analysis of the data is presented in Chapter IV.

CHAPTER IV

Results

The data collected for this study were analyzed for the following major question: "Does the viewing of a brief film have any effect on the attitude of the nonhandicapped middle school student (grade six-eight) toward the handicapped?" The null hypothesis along with the statistical analyses and the results for the hypothesis were as follows:

Null Hypothesis

There will be no significant difference between the attitudes of nonhandicapped students toward handicapped students before viewing a brief film and the attitudes of nonhandicapped students toward handicapped students after viewing the film.

The data were analyzed based upon nonindependent samples using a two tail test to determine if there was a treatment main effect. The dependent variable was the posttest score from the ATDP, Form O_1 and ATDP, Form O_2.

Two hundred twenty-seven students participated in this study. One hundred and thirty-nine subjects were tested using ATDP, Form O_1 as a pretest and ATDP, Form O_2 as a posttest. Eighty-eight subjects received ATDP, Form O_2 as the pretest and ATDP, Form O_1 as the posttest. The reversal of procedures was performed to detect problems in

the equivalency of the forms.

The results of a comparison of pretest and posttest means for subjects receiving ATDP, Form O_1 as the pretest and ATDP, Form O_2 as the posttest are shown in Table 7. The observed difference of 1.16 between the pretest and posttest means for the control group was not statistically significant. With 49 degrees of freedom the probability is .74 that the observed difference is due to random variation in the differences between pre and posttest scores for the subjects in the control group. Therefore, ATDP, Form O_1 and ATDP, Form O_2 appear to be sufficiently equivalent to be used in this research. The difference of 12.57 between pre and posttest means for the experimental group that viewed the film is highly significant. The probability that this observed difference could be attributed to sampling variation in the difference in means is .00004 using a two-tailed test. Therefore the null hypothesis is rejected.

To test for the effects of grade level on the observed results, both groups within this testing procedure (control and experimental) were divided by grade. The results are shown in Table 8. At each grade level the gain in the mean scores for the experimental group was statistically significant. For grades six and seven they were

Table 7

Comparison of Pretest and Posttest Means

For Subjects Receiving ATDP, Form O_1 as Pretest

And ATDP, Form O_2 as the Posttest

Group	Means		Difference In Means	N	Standard Deviation		t	Exact Probability*
	Pretest	Posttest			Pretest	Posttest		
Control	69.24	70.4	1.16	50	16.45	18.66	.329	.74
Experimental	74.15	86.72	12.57	89	18.28	16.28	4.846	.00004

NOTE. * Hewlett-Packard program
Mini-computer Model 2000F

Table 8

Comparison of Pretest and Posttest Means

By Grade Level - Subjects Receiving ATDP, Form O_1

As Pretest and ATDP, Form O_2 as the Posttest

Group	Grade	Means		Difference		Standard Deviation			Exact
		Pretest	Posttest	In Means	N	Pretest	Posttest	t	Probability
Control:	6	65.32	66.32	1.0	31	15.57	17.52	.237	.81
	7	-	-	-	0	-	-	-	-
	8	75.63	77.05	1.42	19	16.21	19.01	.248	.80
Experimental:	6	66.61	79.97	13.36	31	17.23	16.74	3.095	.004
	7	75.03	88.66	13.63	35	19.07	14.36	3.377	.002
	8	82.96	92.87	9.91	23	14.41	15.78	2.224	.04

Note. No control group for grade 7 because of random distribution of ATDP, Form O_1, and ATDP, Form O_2.

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highly significant. The control group showed no difference in the means approaching significance even at the .05 level of confidence.

The results of a comparison of pretest and posttest means for subjects receiving ATDP, Form O_2 as the pretest and ATDP, Form O_1 as the posttest are shown in Table 9. As can be seen from Table 9, the pattern of results is the same as that found in Table 7 suggesting that whatever lack of equivalency there may be did not affect the outcome of this experiment. The experimental group (those who viewed the film) gained 16.17 between the pre and posttests means. Using the t -test for 39 degrees of freedom, this difference is highly significant at the .00002 level resulting in the rejection of the null hypothesis. The control group showed, in effect, no difference between mean pre and posttest scores.

Examining the control group scores by grade level for those subjects that received ATDP, Form O_2 as the pretest and ATDP, Form O_1 as the posttest showed essentially no effect attributable to grade level in the differences in means observed between the pre and posttests. For grade eight the gain in the mean scores for the experimental group was highly significant at the .00002 level (see Table 10).

Table 9

Comparison of Pretest and Posttest Means

For Subjects Receiving ATDP, Form O_2 as the

Pretest and ATDP, Form O_1 as the Posttest

Group	Means		Difference In Means	N	Standard Deviation		t	Exact Probability
	Pretest	Posttest			Pretest	Posttest		
Control:	75.4	75.42	.02	48	16.49	22.21	.005	.99
Experimental:	76.68	92.85	16.17	40	12.97	13.13	5.54	.00002

Upon examining Tables 8 and 10 it would appear that grade level has an effect upon pretest scores. The higher grade levels attained higher pretest scores. The significance of these observed differences was not tested as there was nothing to suggest that the rejection of the null hypothesis was contaminated by this pattern of differences as the observed differences for the experimental group were significant beyond the .05 alpha level of significance at every grade level.

A test was conducted to determine whether the pretest means of the control and experimental groups differed. As can be seen in Table 11, there was no statistically significant difference between the pretest means.

Students in the experimental group who received ATDP, Form O[1] for the pretest scored almost five points higher than their counterparts in the control group. Although this difference is worth noting, the probability is greater than .1 that this is attributable to sampling variation. Furthermore, the experimental group showed a mean gain in score of 12.57 (p=.00004) on the posttest after viewing the film, while the control group had a pre-posttest change of only 1.16 (see Table 7).

To assess the equivalency of the forms the pretest scores were examined within the control and experimental groups. The differences were not statistically significant

Table 10

Comparison of Pretest and Posttest Means

By Grade Level - Subjects Receiving ATDP, Form O$_2$

As the Pretest and ATDP, Form O$_1$ as the Posttest

roup	Grade	Means Pretest	Means Posttest	Difference In Means	N	Standard Deviation Pretest	Standard Deviation Posttest	t	Exact Probability
ontrol:	6	(a)	-	-	0	-	-	-	-
	7	74.93	74.83	-.1	30	17.64	23.84	.018	.98
	8	76.17	76.39	.22	18	14.84	19.79	.038	.97
xperimental:	6	(a)	-	-	0	-	-	-	-
	7	(b)	-	-	0	-	-	-	-
	8	76.68	92.85	16.17	40	12.97	13.13	5.54	.00002

ote. a No control group or experimental group for grade six because of random distribution of ATDP, Form O$_1$ and ATDP, Form O$_2$.

b No experimental group for grade seven because of random distribution of Pre and Posttest forms.

Table 11

Comparison of Pretest Means

Of Control and Experimental Groups

By Test Form

	Group					
Test Form	Control	Experimental	Difference	t	df	P
ATDP, Form O_1	69.24 (n=50)	74.15 (n=89)	4.91	1.573	137	.114
ATDP, Form O_2	75.4 (n=48)	76.68 (n=40)	1.28	.398	86	.694

Note. Numbers in parentheses indicate the number of subjects who completed questionnaire.

at the .05 level as shown by Table 12. Therefore, ATDP, Form O_1 and ATDP, Form O_2 appear to be sufficiently equivalent to be used in this study.

A summary of the observed differences and probabilities is presented in Table 13. It will be noted that there is no significant difference between the pretest and posttest scores of either the control group administered ATDP, Form O_1 as a pretest or the control group administered ATDP, Form O_2 as a pretest. Therefore, it appears the two forms are acceptably equivalent to be used in this study. The mean score gains observed between the pre and posttests of both experimental groups (those exposed to the brief 13 minute film) indicate highly significant differences. The analysis of data indicates a treatment main effect. It appears there is a highly significant positive change in the attitudes of nonhandicapped students toward handicapped students after viewing a brief film.

Table 12

Comparison of Pretest Scores

Within Groups to

Assess Equivalency of Forms

Group	ATDP, Form O_1	ATDP, Form O_2	Difference	t	df	P
Control	69.24 (n=50)	75.4 (n=48)	6.16	1.83	96	.067
Experimental	74.15 (n=89)	76.68 (n=40)	2.53	.888	127	.62

Note. Numbers in parentheses indicate the number of subjects who completed questionnaires.

Table 13

Summary of Observed Differences

and Probabilities Based upon t-tests

Testing Method	Group	Pre-Post Differences	N	Exact Probability*
Pre-ATDP, Form O_1 /Post-ATDP, Form O_2	Control	1.16	50	.74
	Experimental	12.57	89	.00004
Pre-ATDP, Form O_2 /Post-ATDP, Form O_1	Control	.02	48	.99
	Experimental	16.17	40	.00002

Note. * Based upon non-independent samples using a two-tailed test

CHAPTER V

Discussion, Summary, Conclusions, and Recommendations

Discussion

The findings of the present study indicate that exposure to a brief film which deals with handicapping conditions, and which might presumably create better understanding and acceptance of the handicapped, does result in a change of attitude more favorable to handicapped persons. These results substantiate other studies of student attitude toward the handicapped, specifically in terms of changes resulting from exposure to film (Ishikawa & Fujita, 1978; Mulkey, 1981; Westervelt & McKinney, 1980). The results also corroborate the findings of Baker et al. (1981) and Donaldson (1980) in that specific and general attitudes toward handicapped persons can be significantly altered by a single classroom presentation of relatively short duration.

The current study, as well as the studies of Ishikawa and Fujita (1978), Mulkey (1981), and Westervelt and McKinney (1980), has provided evidence that film is an effective form to change attitudes toward the handicapped. The findings of these studies indicate film may be a great potential aid in the integration of the handicapped in regular schools. The result of the study conducted by Hafer and Narcus (1979) which indicated an initial

unfavorable reaction toward the handicapped after viewing a film, was not supported by the results of this study.

A more complete assessment of the findings requires the prior consideration of the study's limitations. Keeping these limitations in mind, the implications of the findings for theory, the changing of attitudes, and research can then be realistically discussed. The results of this research are influenced by the limitations of the scale used to measure attitude and by the sample selected to test the hypothesis.

Limitations of the Measure of Attitude

The investigation relied on a single instrument, The Attitude Toward Disabled Persons scale, to obtain the attitudes of nonhandicapped students toward the handicapped before and after viewing a brief film (Yuker, Block, & Campbell, 1960). The instrument measured the affective component and did not seek to determine the cognitive or behavioral component of the student's attitudes. Therefore, the instrument was limited in measuring only one component of attitude. Consequently, its findings should be regarded with less confidence than would be the case if independent measures had been made of different components of attitude.

Limitation of Sample

The population sampled were 227 sixth, seventh and eighth-grade middle school students in 12 social studies classes. It was a limitation of the study that only one school was sampled for the collection of data. Application of the conclusions to any other population should be made with care until further investigation under carefully controlled conditions.

A more strictly stratified sample would have been desirable but unfortunately this was not practical. The school selected for this study was used because of convenience and availability. Therefore, it is possible an uncontrolled or unknown element of bias may have been introduced.

Summary

Although there is an abundance of literature relating to the broad subject of attitudes, the work involved in this study suggests the conclusion that most applied research has been peripheral and tangential. There were no studies found directly measuring attitudes of nonhandicapped middle school students toward their handicapped peers before and after the use of film as an intervention technique. Furthermore, even the term attitude has eluded precision and has acquired a multiplicity of meanings and interpretations.

It would appear the first priority for investigations in this sensitive area is to develop an acceptable working definition of the term attitude before proceeding with the study. In the present study the definition provided by Shaw and Wright (1967) served as the basic guide in developing a theoretical understanding of attitude. They defined attitude as:

> A relatively enduring system of affective, evaluative reactions based upon and reflecting the evaluative concepts or beliefs which have been learned about the characteristics of a social object or class or social objects. As an affective reaction, it is a covert or implicit response (p. 10).

Therefore, attitude may be defined operationally as the inferred behavior from responses to statements expressing reactions toward the handicapped.

A second priority for the use of terminology is the importance of defining the attitude object. For the purpose of this study the definition proposed by the United Nations in 1975 was accepted. The international organization declared a disabled person as one who was unable to independently ensure necessities of a normal life as a result of mental or physical capabilities. In the present study, all the statements used to infer attitudes toward handicapped persons were derived from experienced psychological experts and presented to the respon-

dents in questionnaire form (Yuker, et al., 1970).

This study investigated the attitudes of 227 non-handicapped middle school students (grades six-eight) toward their handicapped peers before and after exposure to the film The Same Inside (treatment) to determine if positive attitudinal changes occur. An attitude scale Attitude Toward Disabled Persons, Form O constructed by H.E. Yuker, J.R. Block and D.T. Campbell in 1959 to measure one's tendency to accept disabled persons as either different or essentially the same as the nondisabled person was used to measure attitude before and after the treatment. The ATDP, Form O consists of 20 Likert items which were judged relevant by experienced psychologists after the scale was subjected to extensive internal and external analysis (Yuker, et al., 1970). The instrument has been critiqued by a number of investigators and extensively used by researchers to measure attitudes toward disabled persons as a group (Oppenheim, 1966).

The subjects responded anonymously to an information sheet and the ATDP, Form O or ATDP, Form O (modified version created by reordering items on ATDP, Form O) randomly administered as pretests and posttests. A modified Nonequivalent Control Group design was followed (Campbell & Stanley, 1963). Six of 12 regularly scheduled

Social Studies classes were shown a 13 minute film, The Same Inside (experimental group) and six classes were not (control group). Posttests were administered immediately following viewing the film. Pretests, posttests and film were administered by the regular classroom teachers assigned to those classes. A comparison on the mean of the ATDP pretest scores with the mean of the ATDP posttest scores following exposure to the film were tested by multiple analysis t test and by analysis of variance. The analysis of data based upon nonindependent samples using a two-tailed test, indicated a treatment main effect. There was a highly significant positive change in the attitudes of nonhandicapped students after viewing the film. It appears that positive attitude change will result when an exposure to handicapped persons in a film presentation is powerful enough to change a presently held stereotype by either significantly reducing discomfort, uneasiness, or uncertainty on the part of the nonhandicapped and/or by presenting enough information to contradict the presently held stereotype.

Conclusions

The investigator concludes there is a need to change the attitudes of the nonhandicapped toward the handicapped in the school systems in the United States.

The results of the study seem to indicate that the use of non-print media, specifically film, can influence children's attitudes toward persons with physical handicaps. This study substantiates the results of other studies with findings that attitudes toward the disabled can be measured and analyzed statistically by means of instruments only recently developed (Monson & Shurtleff, 1979).

When nonhandicapped children have opportunities to relate to handicapped children, they can come to realize the positive rather than the negative side of handicapping conditions with appreciation for the tremendous feats handicapped children are able to accomplish. Many studies indicate that the extent of prejudice is often directly related to the degree of ignorance about the group (Yuker, 1965). Carefully selected film can assist in preparing nonhandicapped children for the experience of knowing children with physical disabilities. The viewer gains an optimistic appreciation for the courage of a human being who happens to have a handicap. It should be noted that it is not always easy to regulate a nonhandicapped individual's direct contact with handicapped individuals. However, through the use of film as an alternative, the viewer becomes familiar with the handicapped which makes possible a more realistic perception (Hafer & Narcus, 1979).

One criteria for selecting films is the showing of physically disabled people who have positive self concepts and are optimistic about life (Ishikawa & Fujita, 1978).

The present study tends to bear out Simonson's (1980) findings that attitude changes were more often then not produced in viewers of persuasive film. He found motion pictures were a powerful tool for delivering controversial messages, especially when extreme care was used during planning, production and utilization of the film. The current study also concurs with Bryan and Schwartz (1971) who suggested that given the effectiveness of film in teaching new responses, greater effort should be directed at their practical use.

Billings (1963) has very aptly stated:

> When education in the public schools for all children is the common goal, when equal status is assumed in the classrooms of the elementary schools, then the implications seem clear. Ways must be found to reduce prejudice toward cripples if they are not to be further handicapped by the unfavorable attitudes shown them by others in the school (p. 387).

Although no firm conclusions can be drawn regarding the permanence of the attitude changes produced in this study, it is hoped that the findings will be a useful addition to the literature as well as a catalyst for additional and more broadly based empirical investigations on

the subject. If the handicapped are to move into the mainstream of society and become well-adjusted citizens, they must be exposed to normal classrooms. This being the case, both the handicapped and nonhandicapped must be prepared to receive each other in a positive fashion. One way to begin and maximize effective interaction in the classroom appears to be by the use of film.

Lynn Brant (1979), in her conclusion states:

> Attitudes are often based on misinformation or fear of the unknown. To change negative attitudes toward the handicapped, we must analyze and understand our negative reactions. Negative attitudes often create barriers to accepting people who are different from us. If we recognize these barriers, we can eliminate them and accept the abilities as well as the limitations of special people. When we accept the fact that being different is not a handicap, special people will realize their potential and exercise their right to make a meaningful contribution to society. After all, each of us finds that circumstances at various times in our lives make us 'special'. We need and appreciate all the help and understanding we can get because there are times when we are all 'special' (p. 18).

Implications

1. The results of this study indicate attitudes of nonhandicapped students (grades six-eight) towards the handicapped can be changed in a positive, more favorable direction.
2. The use of a brief film specifically designed to break down barriers of uncertainty and prejudice

appears to be an effective technique of facilitating positive attitudinal change toward disabled persons within a relatively short period of time.

3. Stereotypic attitudes toward the physically disabled person can be modified through planned experiences.
4. The results of the study also indicate attempts can and should be made to eradicate the false beliefs and myths surrounding handicapped persons and their needs. The literature supports the need to prepare nonhandicapped children for the experience of knowing children with physical disabilities (Baker et al., 1981).
5. It appears an effective program of attitudinal change would include the use of carefully selected film that allows the nonhandicapped children to vicariously experience some aspects of the life of a handicapped child (Monson & Shurtleff, 1979).
6. It might be hypothesized that selected disabled persons are powerful sources of information in that they contradict stereotypes by their own personalities and therefore, provide more total informational input than can any nonhandicapped presenter (Donaldson, 1980). In addition, handi-

capped persons are highly credible sources of information about disability and disabled persons.

7. Due to the significantly positive change effected by the viewing of a brief film, it is possible that lengthier intervention may produce even more positive, lasting results.
8. While this study has focussed on the modification of attitudes toward the physically handicapped persons, it seems plausible to hypothesize that factors contributing to positive attitude formation are similar for many groups of devalued people. Thus, there is the distinct possibility that the theory and techniques in this study might be used to modify attitudes toward persons who are devalued in other ways.
9. Educational implications include the possible use of film to effect attitudinal change in regular public school classrooms, regular or special education courses, in psychology or sociology classes, or in industrial and institutional settings.

Recommendations

1. Opportunities should be provided through film presentations for handicapped persons to convey informa-

tion to the nonhandicapped about what it is like to be handicapped, who they are as individuals, and how they expect nonhandicapped persons to relate to them (McKerracher, 1982). Short structured or controlled presentations of handicapped persons seem to be the most predicable method of attitude modification (Donaldson, 1980).

2. Boards of Education, administrators and teachers should recognize the influence of film upon nonhandicapped students' attitudes toward handicapped students. Wherever handicapped students are being educated with nonhandicapped, attempts should be made to counteract the nonhandicapped students' fears and negative attitudes toward the handicapped.

3. Nonhandicapped students should be educated to view the handicapped as the same as other children but with special needs (Gallender, 1980). Allport (1954) emphasized that attacks on segregation to reduce prejudice in our society are scientifically sound and of high priority. As the eighteenth century French author Voltaire has said, "Prejudice is the reason of fools." Therefore, we should provide educational experiences which result in cognitive change based on accurate information about handicaps and that which produces affective change in response to a growing sense of empathy for people who are handicapped (McKerracher, 1982).

Future Research

In the process of searching for answers, the investigator encountered additional questions which suggest the need for further research:

1. In order to more effectively combat prejudice it would appear worthwhile to determine the origins of student attitudes toward the handicapped to allow for possible clarification earlier in life.

2. Educators, Boards of Education and legislators should be made cognizant of the successful techniques used to create a climate in which the handicapped are accepted by their nonhandicapped peers. A comparison of the effectiveness of the different kinds of educational intervention techniques would then lead to more effective programs.

3. It seems to be almost a necessity to refine the attitude measurement instruments so that they may be used with greater confidence for research and diagnostic purposes.

4. It would be instructive to determine whether certain personality variables would bear a significant relationship to attitude toward the handicapped. Also, it would be instructive to determine whether demographic

variables other than those used in this study significantly influence attitudes toward the handicapped.

5. It is suggested that others replicate this study in whole or in part in order to verify the conclusions presented and to add information on the reliability and validity of the dimensions obtained.

6. Further research is needed to determine whether audience size and density significantly influence attitudinal shifts or whether film effectiveness can be maintained via educational or public television.

7. Questions as to whether or not eliciting responses indicating more positive attitude toward handicapped persons result in subsequent behavior change or has long term effects need further exploration.

8. Researchers must begin to explore the complex systemic forces that operate in creating and maintaining devaluation in our culture.

9. A different experimental design should be used to allow for posttesting at different time periods while minimizing the number of occasions a student is exposed to a test. Campbell and Stanley (1963) suggest that posttesting at different intervals not only provides information about the effect of the treatment but it also provides information as to whether the effect is maintained.

10. This study should be replicated with the

sample randomly drawn from a larger population. A random selection of students would help to insure that the students were representative of the total population and would preclude the use of intact classes. Also, a randomly selected sample from several school districts would allow for greater diversity in achievement levels, ethnic background and income levels (Campbell & Stanley, 1963).

11. There is a need for further research to determine what approaches are likely to foster more positive attitudes toward the handicapped on the part of school personnel and nonhandicapped children and the types of supportive integrated settings which will promote a better understanding of disabilities and the people who have them.

12. Further research is necessary to determine which intervention technique or combination of will produce the most favorable attitudes toward the disabled.

13. Since school location is a possible factor affecting student attitudes, the study should be done in other communities. Results in the South Bronx and Fort Lauderdale, for example, might differ.

14. Further research might examine the specific content of a film and its effects on attitudes both immediate and delayed (Hafner & Narcus, 1979).

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Appendix A

CHRONOLOGY OF EDUCATIONAL LEGISLATION FOR THE HANDICAPPED IN THE UNITED STATES

1879 Congress allocated $10,000 fund for the purchase of books and materials to be used for the blind.

1931 Section on Exceptional Children and Youth established in the U.S. Office of Education. Extensive federal involvement in education for the handicapped was initiated.

1954 The Cooperative Research Act P.L. 83-531. First step toward support for research of specific handicapping conditions. Provided research grants to institutions of higher education and to states.

1958 Captioned Films for the Deaf Act. Beginning of categorical aid.

1961 Act to Train Teachers of the Deaf.

1963 Mental Retardation Facilities and Community Mental Health Centers Construction Act. Major importance in funding the education of children with all categories of handicaps.

1965 The Elementary and Secondary Education Act (ESEA). Provided funding for the educationally disadvantaged with handicaps.

1966 Title VI of ESEA. Mandated state responsibility for initiating, expending, and improving programs for handicapped children by:

1. establishing a National Advisory Committee on Handicapped Children
2. established the Bureau of Education for the Handicapped.

1967 Amendments to ESEA.

1. Provided Regional Resource Centers to carry on research and development.
2. Provided support for the handicapped by establishing Regional Deaf/Blind Centers.

1968 Vocational Educational Amendments of 1968.

1. Handicapped specifically mentioned in vocational education legislation. Ten percent of education allocation to states used for vocational education of the handicapped. Marked first specific mandate for vocational education for the handicapped.
2. P.L. 90-480 - Accessibility of Public Buildings to the Physically Handicapped Act. Eliminated architectural barriers.
3. Handicapped childrens' Early Education Assistance Act. This provided education for pre-school handicapped children.

1969 1. National Center for Educational Media and Materials for the Handicapped established.

2. Education of the Handicapped Act consolidated all legislation pertaining to the selection of handicapped individuals through amendments to the ESEA of 1966.

1971 P.L. 91-230 The Amendments to the Elementary and Secondary Education Act (ESEA). Created The Education of the Handicapped Act (EHA). Part B authorized grants to states and trust territories for direct assistance in initiating, expanding, and improving programs for the education of handicapped children.

1973 P.L. 93-111 The Rehabilitation Act of 1973 - Section 503 - Required employers with federal contracts to institute affirmative action procedures by recruiting, training, hiring, and promoting qualified handicapped persons. Section 504 - Public schools and post secondary vocational education programs mandated to provide appropriate educational services regardless of nature or severity of handicap.

1974 Education of the Handicapped Amendments of 1974 - P.L. 93-380. Vocational education included in

mainstreaming and implementation of the least restrictive alternative requirements. Provided identification systems and confidentiality of individuals and families. Emphasized the right of all children to a free public education. Introduced the philosophy of mainstreaming and the concept of "least restrictive alternative." Considered "A Bill Of Rights for the Handicapped."

1975 Education for all Handicapped Children Act of 1975 - P.L. 94-142.

1. Reinforced and clarified the provisions of P.L. 93-380.
2. Mandated stricter compliance making noncompliance a violation of federal law.
3. Required IEP's (Individual Educational Programs) for both general and vocational programs to specify individual needs and services for each child.
4. Basic purpose was to provide special education opportunities and related services designed to meet the unique needs of all handicapped children. Financial assistance was available to assist states in providing

and evaluating educational services to all handicapped children through local school districts.

1976 Vocational Education Amendments of 1976.

1. Specifically applied principles of P.L. 94-142 to vocational education.
2. Continued the provisions of 1968 Amendments allocating 10% of all federal funds to the states for educating the handicapped.

(Brant, 1979, pp. 3-6 and Gallender, 1980, pp. 7,8)

Appendix B

MAJOR PROVISIONS OF PUBLIC LAW 94-142 NOVEMBER 28, 1975

1. A full range of educational opportunities for all handicapped students.
2. The complete implementation of the law by September 1, 1980 for all students from age three to twenty-one unless inconsistent with court order or state law.
3. An identification program to locate and evaluate all handicapped children.
4. Established safeguards for the protection of personally identifiable and confidential information data.
5. The establishment, or formation, of due process procedures for handicapped students and their parents.
6. The assurance that any results from due process procedures would be used in a nondiscriminatory manner.
7. The appointment of a surrogate parent whenever necessary.
8. Providing comprehensive in-service training programs for the development of personnel working with the handicapped.
9. The requirement that any private school receiving subsidies for providing services for handicapped students must meet the standards established by the state education agency.

10. The requirement that all certified personnel in leading positions employed by private schools must meet the standards of the state education agency.
11. The establishment of guidelines that assured special students would be provided educational services with normal children whenever possible.
12. The condition that parents would be provided with written communication prior to placement of students in educational programs.
13. The establishment of active programs to promote educational opportunities for the handicapped by each state education agency. This included the dissemination of information relating to the latest development in education for the handicapped in their state.
14. The requirement that each handicapped student must have written individualized education objectives within their program. The formation of these objectives would be a joint venture of the local school, the parents, and the student, whenever possible. The educational information should include the student's current level of performance, the types of services to be provided, long-range goals, short-term objectives, and an evaluation schedule to be reviewed at least annually to determine progress.

Note. The author is indebted to Dr. Demos Gallender for

permission to reproduce this list first published in his book, "Teaching Eating and Toileting Skills to the Multi-handicapped in the School Setting," pp. 26, 27.

Appendix C

ATDP - FORM O_1

No. _____

ATDP SCALE

Mark each statement in the left margin according to how much you agree or disagree with it. Please mark every one. Write +1, +2, +3 or -1, -2, -3; depending on how you feel in each case.

+3: I AGREE VERY MUCH	-1: I DISAGREE A LITTLE
+2: I AGREE PRETTY MUCH	-2: I DISAGREE PRETTY MUCH
+1: I AGREE A LITTLE	-3: I DISAGREE VERY MUCH

_____ 1. Parents of disabled children should be less strict than other parents.

_____ 2. Physically disabled persons are just as intelligent as non-disabled ones.

_____ 3. Disabled people are usually easier to get along with than other people.

_____ 4. Most disabled people feel sorry for themselves.

_____ 5. Disabled people are the same as anyone else.

_____ 6. There shouldn't be special schools for disabled children.

_____ 7. It would be best for disabled persons to live and work in special communities.

_____ 8. It is up to the government to take care of disabled persons.

_____ 9. Most disabled people worry a great deal.

_____10. Disabled people should not be expected to meet the same standards as non-disabled people.

_____11. Disabled people are as happy as non-disabled ones.

_____12. Severely disabled people are no harder to get along with than those with minor disabilities.

_____13. It is almost impossible for a disabled person to lead a normal life.

_____14. You should not expect too much from disabled people.

_____15. Disabled people tend to keep to themselves much of the time.

_____16. Disabled people are more easily upset than non-disabled people.

_____17. Disabled persons cannot have a normal social life.

_____18. Most disabled people feel that they are not as good as other people.

_____19. You have to be careful of what you say when you are with disabled people.

_____20. Disabled people are often grouchy.

Appendix D

GENERAL INFORMATION

NUMBER _____ TEACHER _____

DATE _____ SOC. ST. PERIOD _____

INSTRUCTIONS

To be completed by all students. Place the number of your answer in the space to the left of each item.

Example:

__2__ 1. Color of your eyes.

(1) blue
(2) brown
(3) red

The number "2" in the space indicates the color brown.
Complete every item. Please use pencil.

_____ 1. Age

(1) 10-11
(2) 11-12
(3) 12-13
(4) 13-14

_____ 2. Grade

(1) 6
(2) 7
(3) 8

_____ 3. Sex

(1) Boy
(2) Girl

_____ 4. Are you disabled?

(1) Yes
(2) No

_____ 5. Are you aware of or have you seen any disabled persons who live near you? (in your town or community)

(1) Yes
(2) No

_____ 6. How well do you know a disabled person?

(1) Very well
(2) Fairly well
(3) Not at all

_____ 7. Is there a disabled person (boy, girl, teacher) in your school?

(1) Yes
(2) No
(3) Don't know

_____ 8. Have you seen the film "The Same Inside?"

(1) Yes
(2) No

Appendix E
ATDP - FORM O_2

No. _____

ATDP SCALE

Mark each statement in the left margin according to how much you agree or disagree with it. Please mark every one. Write +1, +2, +3 or -1. -2, -3: depending on how you feel in each case.

+3:	I AGREE VERY MUCH	-1:	I DISAGREE A LITTLE
+2:	I AGREE PRETTY MUCH	-2:	I DISAGREE PRETTY MUCH
+1:	I AGREE A LITTLE	-3:	I DISAGREE VERY MUCH

_____ 1. It is up to the government to take care of disabled persons.

_____ 2. Disabled people are usually easier to get along with than other people.

_____ 3. Most disabled people feel that they are not as good as other people.

_____ 4. You should not expect too much from disabled people.

_____ 5. Parents of disabled children should be less strict than other parents.

_____ 6. Physically disabled persons are just as intelligent as non-disabled ones.

_____ 7. Disabled people are often grouchy.

_____ 8. You have to be careful of what you say when you are with disabled people.

_____ 9. There shouldn't be special schools for disabled children.

_____ 10. Disabled people are as happy as non-disabled ones.

_____ 11. Most disabled people feel sorry for themselves.

_____ 12. Disabled persons cannot have a normal social life.

_____ 13. Disabled people are the same as anyone else.

_____ 14. It would be best for disabled persons to live and work in special communities.

_____ 15. Most disabled people worry a great deal.

_____ 16. Disabled people are more easily upset than non-disabled people.

_____ 17. Disabled people should not be expected to meet the same standards as non-disabled people.

_____ 18. It is almost impossible for a disabled person to lead a normal life.

_____ 19. Severely disabled people are no harder to get along with than those with minor disabilities.

_____ 20. Disabled people tend to keep to themselves much of the time.

Appendix F

Scoring ATDP, FORM O[1]

In scoring the ATDP the first step was to change the signs of the items with positive wording. By definition, a positive item is one which indicates that disabled persons are not different from nondisabled persons. Once the signs of the positive items have been changed, the algebraic sum of all the item scores is obtained. The sign of the sum is then reversed, from negative to positive or positive to negative. The total scores obtained in this fashion can range from -60 to +60 on the twenty-item scale. To eliminate negative values, a constant is added to make all of the scores positive. This constant is 60 for ATDP, Form O. The resulting score range from 0 to 120 with a high score reflecting positive attitudes. If more than 10 percent of the items are left blank (three items) the test is considered not scorable. If 10 percent or fewer items are omitted, the completed items are scored as usual with the customary constant added to eliminate negative values. This is equivalent to assigning a neutral value to the omitted items (Yuker, Block, & Young, 1970, p. 25).

Scoring. Change the signs of the positively worded items 2,5,6,11, and 12. Add all of the responses algebraically. Change the sign of the algebraic resultant. Add the constant 60.

X indicates items in which the algebraic sign must be changed.

ATDP - FORM O_1

No. _____

ATDP SCALE

Mark each statement in the left margin according to how much you agree or disagree with it. Please mark every one. Write +1, +2, +3 or -1, -2, -3, depending on how you feel in each case.

+3: I AGREE VERY MUCH	-1: I DISAGREE A LITTLE
+2: I AGREE PRETTY MUCH	-2: I DISAGREE PRETTY MUCH
+1: I AGREE A LITTLE	-3: I DISAGREE VERY MUCH

_____ 1. Parents of disabled children should be less strict than other parents.

__X__ 2. Physically disabled persons are just as intelligent as non-disabled ones.

_____ 3. Disabled people are usually easier to get along with than other people.

_____ 4. Most disabled people feel sorry for themselves.

__X__ 5. Disabled people are the same as anyone else.

__X__ 6. There shouldn't be special schools for disabled children.

_____ 7. It would be best for disabled persons to live and work in special communities.

_____ 8. It is up to the government to take care of disabled persons.

_____ 9. Most disabled people worry a great deal.

_____10. Disabled people should not be expected to meet the same standards as non-disabled people.

__X__11. Disabled people are as happy as non-disabled ones.

__X__12. Severely disabled people are no harder to get along with than those with minor disabilities.

_____13. It is almost impossible for a disabled person to lead a normal life.

_____14. You should not expect too much from disabled people.

_____15. Disabled people tend to keep to themselves much of the time.

_____16. Disabled people are more easily upset than non-disabled people.

_____17. Disabled persons cannot have a normal social life.

_____18. Most disabled people feel that they are not as good as other people.

_____19. You have to be careful of what you say when you are with disabled people.

_____20. Disabled people are often grouchy.

Total Reverse sign and add 60.

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Appendix G
ATDP - FORM O_2

No. _____ X indicates items in which the algebraic sign must be changed.

ATDP SCALE

Mark each statement in the left margin according to how much you agree or disagree with it. Please mark every one. Write +1, +2, +3 or -1. -2, -3: depending on how you feel in each case.

+3:	I AGREE VERY MUCH	-1:	I DISAGREE A LITTLE
+2:	I AGREE PRETTY MUCH	-2:	I DISAGREE PRETTY MUCH
+1:	I AGREE A LITTLE	-3:	I DISAGREE VERY MUCH

_____ 1. It is up to the government to take care of disabled persons.

_____ 2. Disabled people are usually easier to get along with than other people.

_____ 3. Most disabled people feel that they are not as good as other people.

_____ 4. You should not expect too much from disabled people.

_____ 5. Parents of disabled children should be less strict than other parents.

__X__ 6. Physically disabled persons are just as intelligent as non-disabled ones.

_____ 7. Disabled people are often grouchy.

_____ 8. You have to be careful of what you say when you are with disabled people.

__X__ 9. There shouldn't be special schools for disabled children.

__X__ 10. Disabled people are as happy as non-disabled ones.

_____ 11. Most disabled people feel sorry for themselves.

_____ 12. Disabled persons cannot have a normal social life.

__X__ 13. Disabled people are the same as anyone else.

_____ 14. It would be best for disabled persons to live and work in special communities.

_____ 15. Most disabled people worry a great deal.

_____ 16. Disabled people are more easily upset than non-disabled people.

_____ 17. Disabled people should not be expected to meet the same standards as non-disabled people.

_____ 18. It is almost impossible for a disabled person to lead a normal life.

__X__ 19. Severely disabled people are no harder to get along with than those with minor disabilities.

_____ 20. Disabled people tend to keep to themselves much of the time.

Total Reverse sign and add 60.

Appendix H

60 Walnut Street
Tarrytown, N. Y. 10591
September 17, 1983

Dr. Harold E. Yuker
Provost and Dean of Faculties
Hofstra University
Hempstead, N. Y. 11550

Dear Dr. Yuker:

I am a doctoral candidate at the University of Sarasota planning an attitudinal study of non-handicapped middle school students towards the physically handicapped child before exposure to a film ("The Same Inside," especially made and distributed nationally by the March of Dimes Birth Defects Foundation to help mainstreaming) and after.

The Attitude Toward Disabled Persons Scale appears to be most appropriate for my study. If you concur, I would appreciate a copy of the monograph describing the scale and permission to use it, or a modified form, in my study.

I will be happy to help defray any cost incurred.

Sincerely,

Daniel Rizzi

Appendix I

HOFSTRA UNIVERSITY HEMPSTEAD, NEW YORK 11550

Center for the Study of Attitudes
Toward Persons with Disabilities

September 21, 1983

Mr. Daniel Rizzi
60 Walnut Street
Tarrytown, N.Y. 10591

Dear Mr. Rizzi:

Thank you for your letter about the ATDP. I am enclosing sections of the monograph for your use. Unfortunately, the complete monograph is now out of print. If you wish to use it, however, you can obtain a copy through inter-library loan from the Hofstra University library.

Best wishes in your research. Please keep me informed of the details of your study and any results obtained.

Sincerely,

H.E. Yuker

H.E. Yuker, Ph.D.
Schloss Distinguished Professor
of Psychology

HEY:rm
Enc.

Appendix J

MIDDLE SCHOOL

101 MAIN STREET • NEW YORK 10533

914-591-9494

November 7, 1983

Dear Parent:

I've been the Learning Disabilities Specialist at the Middle School since its inception six years ago. I came to this program with fourteen years experience in Special Education and five years at the Irvington High School. Currently, I am a doctoral candidate at the University of Sarasota, Sarasota, Florida, engaged in a study of middle school students' attitudes toward disabled students before and after an educational program. In order to complete this study, I need your help and support. I am, therefore, requesting that you grant permission for your child to participate in this project.

The students, with parental approval, will be asked to anonymously complete a short, 20-item questionnaire specifically designed and validated by Dr. Harold E. Yuker and others at the Human Resources Center, Albertson, N. Y. to measure attitudes of non-disabled persons toward disabled persons. It is not a test. There are no right or wrong answers. We are interested only in opinions.

The questionnaire will be distributed during a social studies period and should take approximately 20 minutes to administer. A day or two later, half of the student participants will be randomly selected to view a 13-minute color film distributed nationally by the March of Dimes Birth Defects Foundation. The film, "The Same Inside," will be used by school districts nationally to help raise the consciousness of the non-handicapped school population. Those in this study who view the film will be asked to answer a second questionnaire which will again take approximately 20 minutes to complete. The film may then be shown to the balance of the student body at a later date.

The results of this study will, of course, be shared with all those interested. I am hopeful that this project will, in some small way, contribute to the betterment and growth of all students, disabled and non-disabled.

I am most grateful for your cooperation.

Sincerely,

Daniel Rizzi

Daniel Rizzi
Learning Disabilities Specialist

PLEASE SIGN AND RETURN TO YOUR CHILD'S HOMEROOM TEACHER AT YOUR EARLIEST CONVENIENCE. The study will begin on November 14, 1983.

Thank you.

Daniel Rizzi
Learning Disabilities Specialist
Middle School

I grant permission for my child _____ to participate in the study of middle school students' attitudes toward disabled students before and after an educational program as described in the attached letter dated November 7, 1983.

_____
Parent Signature

_____
Date

Appendix K

STUDENT ATTITUDES TOWARD DISABLED PERSONS PROJECT

INSTRUCTIONS FOR COMPLETING QUESTIONNAIRE

Thank you for participating in this project and assisting us in determining how middle school students feel about disabled people. Please complete the General Information Sheet and the Student Attitudes Toward Disabled Persons Scale which follows. Your teacher will go over the instructions and examples with you so that you will know how to record your answers. Your answers will be combined with those of many other students to provide the information needed.

The statements about disabled people which you are asked to respond to represent things with which some people agree and some don't agree. You will probably agree with some and disagree with others. We are interested in finding out how you feel about each statement and how much you agree or disagree with it. Please read each statement carefully.

Do not put your name on the form. Your answers will be treated anonymously. This is not a test. There are no RIGHT or WRONG answers. We are only interested in your opinions and how you feel about disabled people. Work quickly. Your first impressions or feelings are often the best ones to record. Please follow the instructions and answer every item.

Teachers please proceed as follows:

1. Have all students complete the General Information page.

2. Go over the instructions and provide examples for completing the Student Attitudes Toward Disabled Persons Scale. Let students begin.

3. Please check to make certain that students are placing the NUMBER of their answer in the space to the left of each item according to instructions.

4. Allow time for all students to complete all items.

5. Collect completed forms and return to Dan Rizzi.

Thank you and your students once again for your cooperation and participation in this study project.